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FORTY-FOURTH ANNUAL REPORT

OF THE

BOARD OF EDUCATION:

TOGETHER WITH THE

FORTY-FOURTH ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD.

1879-80.

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JANUARY, 1881.

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# STATE BOARD OF EDUCATION, 1881.

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## EX OFFICIO.

HIS EXCELLENCY JOHN D. LONG, *Governor.*

HIS HONOR BYRON WESTON, *Lieutenant-Governor.*

## BY APPOINTMENT.

	TERM EXPIRES.
HON. HORATIO G. KNIGHT. . . . . <i>Easthampton</i>	May 25, 1881.
CHRISTOPHER C. HUSSEY . . . . . <i>Billerica</i>	May 25, 1882.
CHARLES B. RICE . . . . . <i>Danvers</i>	May 25, 1883.
HON. E. B. STODDARD . . . . . <i>Worcester</i>	May 25, 1884.
ALONZO A. MINER, D.D. . . . . <i>Boston</i>	May 25, 1885.
HON. CHARLES FRANCIS ADAMS, JUN. . <i>Quincy</i>	May 25, 1886.
WILLIAM RICE, D.D. . . . . <i>Springfield</i>	May 25, 1887.
MISS ABBY W. MAY . . . . . <i>Boston</i>	May 25, 1888.

## SECRETARY.

JOHN W. DICKINSON, A.M. . . . . *Newton.*

## ASSISTANT SECRETARY AND TREASURER.

C. B. TILLINGHAST . . . . . *Boston.*

## AGENTS.

GEORGE A. WALTON, A.M. . . . . *Newton.*  
ELI A. HUBBARD, A.M. . . . . *Springfield.*  
WALTER SMITH . . . . . *Boston.*

ANNUAL REPORT

OF THE

BOARD OF EDUCATION.





## ANNUAL REPORT.

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THE Board of Education herewith respectfully submits to the Legislature its Forty-fourth Annual Report.

Meetings of the Board have been held statedly once in each month throughout the year, and occasionally at other times as circumstances have required. At these meetings, in discharge of the duties assigned to it by law, the Board has given careful consideration to the condition and efficiency of the system of popular education existing in our Commonwealth.

It is distinctly stated, both in our constitution of government and in the statutes that have been framed in accordance with it, that the purpose of our schools has respect to the growth of virtue as well as the spread of knowledge. The State is concerned in the training of its youth that they should gain practical wisdom and strength for the ends of life, and this requires moral soundness along with intelligence.

Carefulness in teaching is needed in the building up of a sound moral character, as much as in the development of any intellectual capacity. There is no reason to suppose that our public schools are fulfilling their office in this respect any less effectively than they have ever done at any period in our history. They are more efficient now than in the past; and the influence they are exerting for good is beyond all reckoning. The work they have to do for the safety of the State is great and pressing. All judicious criticism upon their methods is welcomed; and it is to be taken as a sign of a wholesome public sentiment,—which our schools are doing their part to create,—that there is much questioning among our people whether the moral power of our public instruction might not be further strengthened.

The Board has often, in its former reports, called attention to

this subject; and it has not been unmindful of what it might itself effect by the direct exercise of its own legal powers.

The State normal schools are under the care of the Board; and a considerable proportion — not less than one-fifth — of all the teachers employed in the Commonwealth are graduates of these schools. The most earnest and continued effort accordingly has been put forth to make these institutions themselves schools of good morals, and schools also in which there shall be trained up teachers who will be able in their turn to give, and disposed to give, wise and faithful moral instruction. Early in this year all the principals of the normal schools were called together at a meeting of the Board, for the purpose of consulting with them as to what more, if any thing, might be attempted in this direction. At this meeting the policy of the State with respect to the training up through its schools of wise, virtuous, and patriotic men, was set forth in the plainest manner, and the persistency with which that policy ought to be pursued was expressed in the strongest terms. But nothing of this was new to the persons with whom this conference was held. It would have been gratifying to any of our citizens having at heart this great public interest, as it was to the Board, to observe with what intelligence and with what earnestness these persons spoke of the care they are taking, that the schools of the State under their charge may not fail with respect to this chief end of their establishment and maintenance. But the Board has other and abundant means of knowledge concerning this carefulness, in which also the whole body of teachers employed in these schools have a share. While it is not claimed that our normal schools are absolutely perfect in this or in any other respect, it is yet confidently believed that they are effective to a very remarkable degree in cultivating, in a genuine and healthy way, the moral character of their pupils.

Besides this, at the institutes, in which great numbers of teachers are brought together from all parts of the State, prominence is always given to the importance of moral training in the schools, and practical suggestions are made concerning the manner in which it should be conducted.

The Board is also accustomed, according to the authority and requirement of the law, to send forth annually blank forms of inquiry for the returns to be made by the school committees: and it has now directed its secretary to include

among these inquiries such questions as may be framed with the view of drawing attention more distinctly to the moral condition of the schools, concerning which reports are thus to be made.

This account having been given of its own direct action, there remains with the Board the duty of offering such suggestions as it may be able to make of any practical means for improving and extending the efficiency of our schools in respect to the matter under consideration.

It is certain that, as the laws now stand, the requirements concerning teaching morals are at least as clear and full as are those relative to any other branch of instruction. If any further legislation is needed, it can only relate to certain embarrassments peculiar to moral training. One of the greatest of these embarrassments is found in the fact that the good or bad results of teaching in morals are not so easily brought to any immediate and open test as are the results in other departments of school work. It is quickly known when the pupils under the charge of any teacher are gaining rapidly in ability to read or to cipher, and the teacher is commended for his success. But it is not so certain to be known at once if those pupils are making progress in what belongs to that "good behavior" which the laws require to be taught to all the children of the State. As definite measurements are not easy to be made, it is not practicable to lay down rules prescribing exactly what should be done in this department of instruction. The teacher himself should know how to do this work, and should have a mind for it. It seems to follow that legislation can be of little use, except as it may serve to hold the attention of the local school officers upon this matter, and thus lead to the exercise of greater care by them in the selection and oversight of teachers.

It may, therefore, be advisable to direct by statute that school committees shall make special mention, in their reports, of the morals and behavior in each school under their charge.

To this may be added a requirement that the school committees, or the superintendent of schools under their direction, shall call together all teachers in each city or town not less frequently than once in each year for instruction and conference concerning this branch of school work. And such meetings would also be useful in other respects.

It may be well to print the great constitutional and statutory enactments setting forth the purpose of the State in the rearing of its youth, and to set them conspicuously in view in each one of our schoolrooms, thus bringing more distinctly to the aid of the teacher the dignity and force of the law. It may also, perhaps, be well to include certain statutes relating to attendance upon the schools and to truancy.

Mention may here be made of the fact that public discussions have arisen repeatedly during the year concerning the necessity or propriety of providing better text-books for school use, upon the subjects of morals and manners, than now exist. The use of a text-book in this case may be of advantage as a means of making it certain that at least a given amount of time should be devoted to these topics. Yet this gain might be counterbalanced in the formality and lifelessness of the study and the instruction that this variety of compulsion would secure. It has not been the policy of the State to direct what text-books shall be used, or the use of any text-books in the schools, unless the single requirement of the reading of some portion of the Bible should be regarded as an exception to this rule. Individual intelligence and enterprise may be safely depended upon to furnish books for our schools, as they are understood to be needed; or these may be assisted, if in any case that should be required, by the special efforts of public-spirited men. The selection of books, however prepared, is most wisely left to the discretion of the committees in each locality. While, therefore, we observe with satisfaction the signs of interest that appear with reference to a better manual of instruction in morals, we do not recommend any departure in this instance from the usage which has thus far been followed.

Concerning this whole subject, of so great weight and importance, it is also to be remembered, that, beyond all the State may do by its laws, much reliance must at last be put upon the existence of a healthy sentiment in the minds of the people, and upon that watchfulness which sagacious and high-minded men are likely to keep upon whatever affects most vitally the public welfare. Such men will not find our laws, even as they now stand, to be ineffective instruments in their hands.

The prescribed courses of study of the State normal schools have been carefully examined and revised during the year in

conference with the principals of the schools. The changes made have not been extensive ; and they have been determined with reference both to uniformity in the schools, and to the general requirement of public instruction. While, however, it is intended that the course of study shall be everywhere substantially the same, there is no purpose or wish that the schools should be cramped in their methods, and brought, all of them, to one exact pattern. The Board has now before it, through recent action to that effect, the work of all members of the graduating classes in each of the schools, upon a schedule of questions prepared by the secretary ; and material in part for a judgment concerning the efficiency of the schools is thus at all times accessible. The evidence of many kinds concurring to establish the value of the instruction given in these normal schools is so clear and strong as to make it a matter to be greatly desired that a still larger proportion of our teachers might have a share in the benefit which their training affords.

The Board has received within the year a generous proposal from the President and Fellows of Harvard College to maintain in the Lawrence Scientific School, for the benefit of male graduates of the normal schools, a number of scholarships not exceeding eight, and of an annual value of one hundred and fifty dollars each, the same being the amount of the annual tuition-fees. The incumbents are to be appointed upon the recommendation of principals of the normal schools, and the appointments are renewable for one or more years upon the recommendation of the faculty of the Scientific School. The proposal was accepted by the Board, with a vote of acknowledgment to the authorities of the college. One of the graduates of the Westfield Normal School has entered upon a scholarship thus provided.

A grant of land, upon which to place a building for the accommodation of the Normal Art School, was made by the Legislature at its last session. Meanwhile, also, the term of lease for the building previously occupied by the school having expired, and authority for that purpose having been given by the Legislature, the Board has leased for three years, for the use of the school, the building upon Washington Street known as the Deacon House. A considerable saving has been effected in rent, not only in comparison with the sum expended in previous years, but as compared also with the amount contemplated



in the appropriation. The rooms thus secured are tasteful, and in many respects well suited to their use.

Thirteen Teachers' Institutes have been held during the year, under the direction of the Board. These meetings are conducted by the secretary and by the agents of the Board, with the assistance of teachers from the normal schools, and of gentlemen whose services may be engaged for this purpose. There is reason to believe that they continue to serve a valuable purpose.

There are also associations of school committees in various parts of the State, the number reaching now to nine; and the work of these associations has been observed with much interest by the Board, and their meetings have been in all cases attended by the secretary or by one of the agents.

The Board desires to express its strong belief that the services the agents render are in many ways of great value to the cause of public education; and it hereby asks of the Legislature that it may be authorized and enabled to secure the aid of one or more additional men in this capacity.

The report of the examination made by one of the agents of the Board of the schools in Norfolk County, of which a large number of copies were printed, has been in great demand, both in the State and throughout the whole country; and it continues to the present time to excite a lively interest. Similar examinations have since been ordered in other States. It is a matter of small concern to us that comments are made upon this report in other quarters, as if it indicated some utter and disastrous failure of our common-school system itself. Every person having practical acquaintance with these matters must understand that there are likely to be found in the public schools, if not in all schools, some pupils, who, after all that can be done, may be confidently depended on to work with little ease or intelligence; and if in any examination notice is taken and clear record made of all their failures, the result will appear to be in that respect a remarkable one. The averages of the work done are of the most importance; and these, in the case of the Norfolk schools, were not low. But, be this as it may, the aim of the examination was to come at, in so far, the truth respecting the schools. If any defects were brought to light, it is so much the better for the examination. The work ought now to be carried on much farther, and by more perfect meth-

ods in so far as they can be devised ; and it should be extended over the whole State. Some such continuance of examinations the Board is endeavoring to secure, but its resources to this end should be enlarged. There ought to be brought together from all parts of the State, to the office of the secretary of the Board, some materials for examination and judgment concerning all our schools. When this is done, we shall be able to make intelligent comparison between them, and shall know more of their excellence and their defects ; and there will be means also at hand in future years for comparing the schools of the time then present with the past, and for judging which way we are moving. Much of this work of comparison and judgment is now undertaken, especially by persons not well acquainted with our schools, to little purpose.

With a purpose of securing, so far as might be, the benefit of intelligent observation from all available sources, the secretary of the Board has been directed to send to a selected number of persons questions designed to call forth their opinions with fulness concerning the present condition of our schools, and the changes, if any, that should be made in them. A few only of those thus addressed have offered any extended suggestions in reply. Among those who have answered at some length, the judgments given upon certain points most controverted have been ranged upon either side with a peculiar, and perhaps instructive, evenness of opposition. The replies, taken together, do not indicate any call for sweeping and radical changes in our system of public education.

The Board agrees with this conclusion concerning the general and established soundness and efficiency of the whole system. It is to be borne in mind, that, in the details of its administration, or in its actual working appliances, there is abundant opportunity, and even urgent necessity, for improvement. Some suggestions, deemed to be important to these ends, have been made by the Board in its recent reports, which are not yet carried out ; and, among these, mention is now made again of the recommendation that our school-fund shall be so enlarged as to afford more assistance to the smaller and poorer towns.

In obedience to a resolve passed by the last Legislature, the Board has caused to be prepared a plan providing for the more efficient supervision of the schools throughout the State. This plan is commended to your careful consideration.

Detailed reports from the visitors of the several normal schools, and the report of the secretary of the Board, with the usual accompanying documents and statistics, are herewith submitted.

JOHN D. LONG, *ex officio*,  
BYRON WESTON, *ex officio*,  
HORATIO G. KNIGHT,  
CHRISTOPHER C. HUSSEY,  
CHARLES B. RICE,  
ELIJAH B. STODDARD,  
ALONZO A. MINER,  
CHARLES FRANCIS ADAMS, JUN.,  
WILLIAM RICE,  
ABBY W. MAY,

*Board of Education.*

BOSTON, Dec. 20, 1880.



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REPORTS OF VISITORS

TO THE

NORMAL SCHOOLS.

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## BRIDGEWATER.

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THE Bridgewater Normal School enjoys a high reputation.

Deriving its pupils from a wide extent of country and from all the walks of life, it is in full sympathy with its many patrons, who are ever ready to give employment to the graduates upon the completion of their professional course of studies.

The school is doing most satisfactory work for its pupils through its well-chosen topics of study and natural methods of teaching. The teachers are working in harmony for the best results. As the different branches of learning are taken up, they are taught and studied with especial reference to teaching them to others.

In this way the pupils are prepared, when they come to the last term of their course, to study teaching as a science.

The teachers of the school remain the same as last year, with one exception. Reference is made to this change in another part of this report.

An arrangement has been made with the town of Bridgewater, by which one of the schools of the town is to become a school of observation and practice for the Normal School. This arrangement will furnish an opportunity to the members of the senior class to observe a good school with reference to its organization, its course of studies, its methods of teaching, and its discipline.

In addition to this, the class will have an opportunity to put to the test, under the direction of skilled teachers, the principles they have learned in the Normal School.

The school needs additional room for its classes in chemistry, physics, and natural history. It is policy for the State to furnish its training-schools with all the facilities necessary for illustrating all the topics taught, and for enabling the pupils to make observations for themselves.

We believe that Bridgewater is doing its share in the grand

work given the normal schools to do. The classes in the school are all large, and the number taking the advanced studies is constantly increasing.

The following is the report of the principal:—

The statistics of the school for the year ending July 1, 1880, are as follows:—

TERMS BEGAN SEPT. 2, 1879, AND FEB. 10, 1880.	FIRST TERM.			SECOND TERM.			FOR THE YEAR.		
	Gentlemen.	Ladies.	Total.	Gentlemen.	Ladies.	Total.	Gentlemen.	Ladies.	Total.
Members . . . .	58	111	169	54	103	157	66	133	199
Entering classes . .	16	27	43	3	19	22	19	46	65
Graduates . . . .	5	14	19	16	20	36	21	34	55
Received State aid .	17	14	31	20	16	36	23	19	42

The whole number of admissions to the school has been 2,656: gentlemen, 902; ladies, 1,754.

The whole number of graduates has been 1,590: gentlemen, 550; ladies, 1,040. The whole number from the four years' course has been 37: gentlemen, 24; ladies, 13. Of the number belonging to the school for the year, Plymouth County sent 69; Norfolk, 35; Middlesex, 27; Bristol, 18; Barnstable, 10; Essex, 7; Suffolk, 7; Worcester, 4; Hampden, 2; Berkshire, 1; Franklin, 1; the State of New Hampshire, 8; Maine, 5; Vermont, Wisconsin, Pennsylvania, Georgia, California, each, 1. Totals: Massachusetts, 181; other States, 18.

Average age of those admitted during the year is 19 years, 11 months: of the gentlemen, 20 years, 2 months; of the ladies, 19 years, 9 months.

Occupations of parents: Farmers, 15; mechanics, 14; traders, 9; manufacturers, 8; teachers, 3; clergymen, agents, laborers, seamen, each, 2; butcher, broker, hack-driver, expressman, lawyer, physician, restaurant-keeper, superintendent, each, 1. Total, 65.

Of the 65 candidates received, there came from high schools, 36; from academies and private schools, 15; from grammar schools, 11; from district schools, 3.

Of the 55 graduates for the year, 9 were from the four years' course. Three of the graduates from the two years' course are continuing their studies in the school. Three of the graduates are teaching out of the State; the others are teaching in Massachusetts in district, grammar, and high schools.

The number of students pursuing the four years' course during the year has been 47; gentlemen, 31; ladies, 16. The number taking the two years' course, with some additional studies, has been 15.

Massachusetts has been represented during the year from eleven counties: seven other States have been represented. More than three-fourths of the pupils for the year came from the five counties, Barnstable, Plymouth, Bristol, Norfolk, and Middlesex. Most of the graduates return to teach in the counties from which they came. The number of graduates of high schools, among the candidates for admission, is steadily increasing; a majority of those received in the last class were graduates of high schools. These graduates give three reasons for coming to the Normal School: first, they desire normal training in preparation for teaching; second, they state that normal-school graduates more readily find employment as teachers; third, that teachers who have had the training of the normal school command better positions. These facts are encouraging, and show that the normal schools are accomplishing the objects for which they were established.

The number of graduates this year has been larger than usual; the last class was as large as any ever graduated from the school. All these graduates, and more, have been called for very soon after they received their diplomas.

The success of the graduates in their schools is very encouraging. A few fail to come up to the required standard; most are reported as doing good work. Many receive high commendation from school committees and superintendents for their ability to teach and govern their schools.

There is an increasing desire on the part of the members of the school to take the longer course of studies; nearly one-third of the school are pursuing the full four years' course, and others are supplementing the two years' course with one or two terms of additional study.

This desire on the part of the pupils, which is an exponent of the public demand for higher qualifications in the teachers of the public schools, makes it necessary that the school should furnish the best possible facilities for normal training in all the studies of the course. To accomplish this most desirable end, the school needs at once a new building which shall contain rooms for chemical and physical laboratories, furnished with the most approved appliances for training the pupils for the study and teaching of natural objects.

The present facilities are not adequate for the work required in the course of studies. The rooms now used are too small

for the classes; and portions of the experimental work, which ought to be done by every pupil, cannot now be properly performed. The chemical laboratory is upon the lower floor, and the gases escaping from it into the upper part of the building are a great annoyance.

The new building can be located on the south side of the schoolhouse, and be connected with it by a porch. The steam-boiler, used for heating the schoolhouse, has sufficient capacity to warm the new laboratories.

The addition of these new laboratories will greatly increase the efficiency of the teaching and training, and will doubtless attract a larger number, and a higher grade of students to the school. It is earnestly hoped that the Board will secure, this winter if possible, an appropriation for the erection and equipment of this building.

The boarding-hall continues in successful operation; the building and the furniture have been kept in good condition, and some improvements have been made without any appropriation from the State, and without any increase in the price of board since the hall was erected and furnished.

A change in the corps of teachers occurred near the close of the school-year. Miss Edith Leonard, who had been a teacher in the school for the last five years, after a leave of absence for three terms, resigned her position on account of her health. Miss Hutchinson, who had been engaged to teach while Miss Leonard should be absent, closed her engagement at the end of the year, having performed her work in a very satisfactory manner. Mr. Cyrus A. Cole, a graduate of this school, and for the last twelve years principal of the high school in Reading, was appointed one of the corps of teachers at the end of the school-year, and entered upon his work at the beginning of the fall term.

C. C. HUSSEY,

C. F. ADAMS, JUN.,

*Visitors.*

## FRAMINGHAM.

THE statistics of the school for the year ending July 1, 1880, are as follows:—

Whole number of pupils during the year . . . . .	81
From Maine . . . . .	1
New Hampshire . . . . .	11
Connecticut . . . . .	1
New York . . . . .	1
New Jersey . . . . .	1
Ohio . . . . .	1
South Carolina . . . . .	1
Massachusetts (Bristol County, 1; Essex, 2; Hampden, 2; Nor- folk, 8; Middlesex, 25; Suffolk, 1; Worcester, 24; Plymouth, 1) . . . . .	64

Occupation of parents: Farmers, 22; shoemakers, 15; carpenters, 5; merchants, 5; clergymen, 4; doctors, 3; salesmen, 3; book-keepers, 3; overseers, 2; manufacturers, 2; druggists, 2; civil engineers, 2; cabinet-makers, 2; lawyers, 2; engineers, 2; expressman, 1; cashier, 1; weaver, 1; iron-moulder, 1; revenue collector, 1; landlord, 1; real-estate agent, 1.

The past year brought but few changes of note to the school. The most serious one was the loss, by marriage, of a teacher who for two years had been most efficient, faithful, and successful in her work. Being a member of the family in the boarding-hall, her good influence extended beyond school-hours. To Miss Montgomery the pupils owed very much of all that made their home-life both happy and helpful. Her place is as yet only temporarily supplied. There has been but one other change in the corps of teachers. Mrs. Mary J. Studley, teacher of physiology and chemistry, resigned, and her place has been taken by Miss Janet W. Williams, a former graduate, who has had a successful though short experience in teaching, and brings to her new position a zeal and spirit that promise the best results. The good work done by Miss Pratt last year in one branch of teaching seemed to warrant us in extending her department.



and she is now teaching physics, geography, and the history of education, with good promise. The other teachers are continuing their well-known record.

There was no mid-year graduating-class, owing to a vote of the Board, which admitted no class in February, 1878. In June, twenty-two were graduated, eight of whom had completed the advanced course. Of these twenty-two, nine are now continuing their studies in the advanced class, seven are teaching (five in Massachusetts, one in Maine, one in New Jersey), and six are waiting for schools.

Fourteen of the twenty-two are graduates of high schools, or have had an equivalent course in academies.

The standard for both entrance and graduation has been raised essentially in the last six years, though it is not easy to show it in figures or express it in words. The standard for admission is sixty per cent in each separate branch, but that in itself proves little to those who do not know the character of the examinations. But those who do know, and who know also the high ideals and demands of the principal and her fellow-workers, are aware that the effort is to exclude those whose educational foundations and acquirements are poor and weak, or whose capacity is obviously unequal to the work required. It is unjust to scholars to admit them to a course to which they are not equal, as it is unjust to the community to send forth teachers not fitted by nature and training for their profession. These two facts are always in the minds of those who conduct the school at Framingham. They intend never to send out a teacher, furnished with a diploma, unless she has good attainments, general intelligence, and an earnest spirit, with proved ability to manage the classes in the model school. And whenever the Board of Education, in response to a demand, — which, let us hope, public sentiment will soon make, — shall require higher attainments in place of those which at present are demanded of young teachers, the school at Framingham will be among the first to respond.

It was stated in last year's report that the drains and water-supply needed thorough repair, and a certain amount of remodelling. Important changes have been made during the summer, by the advice of Dr. Folsom of the State Board of Health. Some small matters are yet to be attended to; but, in the main, things are now in as good order, we believe, as is possible until



the town shall have a thorough system of drainage. The recent work has, we think, been thoroughly done, replacing what was exceedingly poor, and even dangerous. It speaks more than well for the care taken of health, that there has not heretofore been serious illness in the family. Happily, there is a very good record in that respect, the year just past being no exception.

We have been favored with lectures during the year from Revs. A. D. Mayo and L. R. Eastman, jun.; Professor W. P. Atkinson on poetry (two lectures); Mr. A. Bronson Alcott; Mr. Gee Gam of San Francisco, on education in China; Mr. Messaros of Sparta, on Modern Greece; Mr. J. Abelardo Nunez, Minister of Education in Chili; and Dr. B. Joy Jeffries, on color-blindness.

Nearly one hundred volumes and a set of wall-maps have been purchased with money from the Todd Fund.

The model school is in a most flourishing condition,—too much so, indeed, in point of numbers; for we have more applicants than there is room for, and pupils are waiting for vacancies. Not only is it giving great satisfaction to its patrons, but it is doing well a most important work for the normal scholars, who, by turns, teach in it, under the direction of Misses Williams and Barber. We could wish that every intelligent advocate of improved methods of training the young might examine the work done in this model school. We believe it will rank with the best in its methods and results, and we are sure that our graduates owe to it some of the best opportunities that the State affords them. For there they become familiar with wise and enthusiastic teaching, and have a chance to show what are their own possibilities as teachers; and best of all, there, with the responsibility for classes in their own hands, they get criticism and guidance, which save them from having to gain experience through so many failures, as otherwise would almost inevitably attend them. The experience of a young teacher, cast adrift to win her way alone, is gained at a great cost, not to herself only, but also to the scholars under her charge. If this were borne in mind by parents and school-committee members, the demand for well-trained teachers would increase rapidly, and an equally rapid improvement in our schools would be the result.

The special needs of the coming year are of repairs upon the

buildings, such as paint for their preservation, and some similar matters, which, though costing a good deal of money, do not involve any changes in the buildings.

We commend the school to the legislators of the State as wholly worthy to have its needs generously met; for we are confident that it is doing its work admirably and successfully.

ABBY W. MAY,

A. A. MINER,

*Visitors.*

SALEM.

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THE principal of the school, purposing to visit Europe in the summer vacation, received a leave of absence covering a few days of the spring term; and his presence was much missed at the closing exercises of the school. He returned in season for the opening of the fall term. The management of the school under his direction continues to be marked by an ease and a carefulness which are to be found here together in a most befitting combination.

Few changes have occurred among the teachers here employed. During the last half of the year, Miss Sophia O. Driver was compelled by ill health to rest from her work; and Miss Delia Stickney, a graduate of the school, served acceptably in her place.

At the close of the year, Mr. Leslie W. Miller, who for six years had, with marked success, conducted the department of drawing, resigned his situation, having accepted the important post of head master of an art school in Philadelphia. Mrs. Emma F. Bowler, one of the most successful teachers of drawing in Massachusetts, was appointed his successor.

Very gratifying reports are received concerning the success of the graduates of the school in their work as teachers. It is known also, that, in the competitive examinations to which many of them have been subjected in their efforts to obtain situations, they have, with noticeable frequency, been awarded the highest rank for scholarship.

The statistics of the school for the year are as follows:—

1. The whole number of pupils belonging to the school during the year was 275.

Of this number, Essex County sent 173; Middlesex, 64; Suffolk, 7; Bristol, 3; Norfolk, 2; and Plymouth, 1. The State of Maine sent 10; New Hampshire, 7; Vermont, 2; New Jersey, Ohio, Illinois, Iowa, Texas, and Nebraska, each, 1.

The number present during the term which closed Jan. 13, 1880, was 234; the number present during the term which closed June 22, 1880, was 234.

The whole number of pupils that have been members of the school since its opening in September, 1854, is 2,457.

2. The number graduated from the regular course Jan. 13, 1880, was 13; the number graduated from the same course June 22, 1880, was 33; and from the advanced course, 8.

The whole number of graduates of the school (50 classes) is 1,146.

3. The number that entered the school Aug. 26, 1879, was 97; the number that entered Feb. 3, 1880, was 36.

4. The average age of the class admitted Aug. 26, 1879, was 17.77 years; of the class admitted Feb. 3, 1880, 18.17 years.

5. The fathers of the pupils admitted during the year are, by occupation, as follows: Mechanics, 35; farmers, 21; manufacturers, 21; traders, 17; agents, 4; miscellaneous, 35.

6. The number that received State aid during the term ending Jan. 13, 1880, was 28; during the term ending June 22, 1880, 40.

The whole number of different pupils that received State aid was 47.

7. The number that received aid from the Bowditch Fund during the first term was 20; during the second term, 30. The number of different pupils thus aided was 39.

8. Of the class admitted Aug. 26, 1879, ten had taught school; of the class admitted Feb. 3, 1880, none had taught.

9. The number of pupils connected with each of the classes during the first term of the year was as follows: Special, 7; advanced class, 10; class A (senior), 28; class B, 46; class C, 43; class D, 100.

The number during the second term: Special, 2; advanced, 9; class A, 43; class B, 45; class C, 75; class D, 60.

10. Of the 133 pupils admitted during the year, Lynn and Salem sent 19 each; Lowell, 11; Gloucester, 8; Peabody, 7; Danvers, 6; Malden and Winchester, 4 each; Cambridge, Melrose, and Newburyport, 3 each; Beverly, Boxford, Chelsea, North Andover, North Reading, Swampscott, and Wenham, 2 each; Amesbury, Arlington, Billerica, Canton, Charlestown, Boston, Easton, Salisbury, Somerville, Essex, Everett, Halifax, Hamilton, Haverhill, Lawrence, Manchester, Marblehead, Wilmington, Reading, and Woburn, 1 each. The State of Maine sent 4; New Hampshire, 3; New Jersey, Ohio, Illinois, Texas, and Nebraska, 1 each.

During the year four books were added to the general library by purchase, and thirty-three by gift.

The text-book library was increased by the purchase of one hundred and sixty-two volumes.

During the year, Mr. James Samuelson of Liverpool lectured to the school on "The Darwinian Theory of Natural Selection;" Mr. Walter Smith, on "Industrial Drawing in the Public Schools;" Professor William I. Marshall, on "The Arid Region of North America;" and Professor William P. Atkinson, twice on "English Literature."

Mention has before been made by the visitors of the inadequacy of the apparatus for warming the school-building, but a wish to put off as far as possible the outlay of money has prevented our pressing the matter hitherto with much urgency. But the condition of the furnaces, never equal to their work, has grown worse year by year; and it has now come to be such as to make the building in severe weather not only uncomfortable, but unsafe for its occupants. Some more effective appliances should be made use of at once.

And we do not doubt that the Legislature, the matter being thus understood, will provide for meeting the expense that will be involved.

J. W. DICKINSON,  
CHAS. B. RICE,  
C. C. HUSSEY,

*Visitors.*

WESTFIELD.

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THE visitors of the Westfield Normal School submit to the Board their accustomed annual report.

They are happy to record the continued prosperity of the school, and to express their high appreciation of the earnest and faithful labors of the entire Board of Instruction. The teachers of the school remain unchanged, with one exception. Mr. Hinds resigned his position at the close of the summer term, to prepare for the practice of medicine. With the exception of his class in penmanship, which could fortunately be given to a lady member of the school of proved ability in that department, his work has been done by the other teachers. The burden is too heavy to be long borne, and a new teacher will be indispensable at the beginning of the next term.

The accompanying statistics show the school to have been somewhat smaller than heretofore. The diminution in numbers is doubtless owing to various causes, among which may be mentioned the following: 1st, The wages paid to teachers in a great majority of the towns tributary to the school have been greatly reduced. 2d, The expenses of a course in the Normal School have not diminished, but *for many* have increased, as the standard of graduation in the schools has been so much advanced as to require a longer period of study for the completion of the course. 3d, The increase in the number of training and other schools, supposed by many to furnish an equivalent for a course in a normal school. It seems doubtful, if, under existing circumstances, the membership of the school can be very much increased without a sacrifice of *quality* in its graduates.

Of the twenty-seven graduates of the past year, two have died, one has entered Harvard College for further preparation for teaching natural history, one has returned to continue her



studies in the Normal School, and nineteen have taught, all but one, in Massachusetts, and this one expects soon to return to Massachusetts to engage in teaching.

Three of the members of the class graduating in June would have taught, but for needed rest. Two of these expect soon to enter upon the work. We are assured that several of these graduates have achieved notable success. Favorable reports have been sent to the principal of all but one. The demand for teachers, especially for *experienced* teachers, has been much greater than the school has been able to meet.

It is entirely safe to say that the work of the graduates of this school is very highly esteemed. They have been sought for in the leading cities and towns of this region, and representatives of the graduates of the last few years have been appointed to important positions in other portions of the State.

An important and long-needed improvement of the school premises has been made by connecting the sinks and water-closets of the school-building with the street-sewer. The first cost of this improvement was not great; and the improvement will soon pay for itself by obviating the necessity of frequent expenditures for cleansing the cesspools, which have heretofore caused great annoyance.

There is a pressing need of other improvements. The fence around the school premises is decayed beyond the possibility of profitable repair.

More cases for natural-history specimens are extremely desirable.

Our library has been somewhat enlarged by purchases; and a valuable contribution of volumes, bound and unbound, has been received from the Hon. J. W. Dickinson, the secretary of the State Board.

The school is indebted to Miss Frances R. Shaw of New York for a collection of shells from the West Indies, and for several text and reference books; to Daniel B. Brainard, Esq., of Scranton, Penn., for valuable fossils from the coal-regions; to Professor Harvey Porter of Beirut College, Syria, for other valuable fossils from Mount Lebanon; to Miss Florence Lawton, of the last graduating class, for a natural-history group; and to various other friends for smaller donations.

The school has been visited during the year by the secretary of the Board and his agents; and the Board has been further

represented among the visitors of the school by Rev. Mr. Hussey, Rev. C. B. Rice, and Miss Abby W. May. From most of these the school has had short addresses of counsel and encouragement, which have been very thankfully received.

The school has been addressed, also, by Rev. Henry Blanchard on the study of history; and entertained by Professor E. H. Rice with an hour of readings.

The statistics appended are for the year ending July 1, 1880.

*Members.*

Ladies . . . . .	99
Gentlemen . . . . .	16
Total . . . . .	— 115

Of this number, Hampden County sent 54; Berkshire, 10; Hampshire, 8; Franklin, 5; Worcester, 6; Essex, 3; Middlesex, 1; Barnstable, 1; Connecticut, 11; New York, 4; New Hampshire, 3; Ohio, 3; New Jersey, 2; Vermont, 1; District of Columbia, 1; Indiana, 1; Japan, 1.

*Graduates.*

January, 1880:—

Ladies . . . . .	3
Gentlemen . . . . .	2
Total . . . . .	— 5

June, 1880:—

Ladies . . . . .	20
Gentlemen . . . . .	2
Total . . . . .	— 22

Whole number:—

Ladies . . . . .	23
Gentlemen . . . . .	4
Total . . . . .	— 27

Of these, 2 were graduates from the four years' course, and 6 from a two-and-a-half years' course.

*Entering Class.*

August, 1879:—

Ladies . . . . .	37
Gentlemen . . . . .	7
Total . . . . .	— 44

February, 1880:—

Ladies . . . . .	9
Gentlemen . . . . .	0
Total . . . . .	— 9



Whole number for the year:—

Ladies	.	.	.	.	.	.	.	.	.	.	.	46
Gentlemen	.	.	.	.	.	.	.	.	.	.	.	7
Total	.	.	.	.	.	.	.	.	.	.	.	— 53

Average age:—

Ladies	.	.	.	.	.	.	.	.	.	19 years 3 months.
Gentlemen.	.	.	.	.	.	.	.	.	.	20 “ 3 “
General average	.	.	.	.	.	.	.	.	.	19 “ 5 “

Occupations of parents: Farmers, 17; mechanics, 9; merchants, 6; professional men, 5; laborers, 5; manufacturers, 4; engineers, 3; overseer, 1; omnibus-driver, 1; postmaster, 1; military man, 1.

*Recipients of State Aid.*

January, 1880:—

Ladies	.	.	.	.	.	.	.	.	.	.	.	15
Gentlemen	.	.	.	.	.	.	.	.	.	.	.	4
Total	.	.	.	.	.	.	.	.	.	.	.	— 19

June, 1880:—

Ladies	.	.	.	.	.	.	.	.	.	.	.	27
Gentlemen	.	.	.	.	.	.	.	.	.	.	.	7
Total	.	.	.	.	.	.	.	.	.	.	.	— 34

Whole number for the year . . . . . 53

WILLIAM RICE,  
HORATIO G. KNIGHT,  
*Visitors.*

## WORCESTER.

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THE school at Worcester continues to show satisfactory evidence of efficiency and stability of instruction and management.

The teaching force remains the same as last year, and almost the same as at the beginning of the school, with no diminution of energy or faithfulness; it ought to be increased, however, by the addition of one more teacher, in order to so far relieve the principal of his present work as instructor, that he may have more time to devote to the increased and increasing duties of management, correspondence, visitation of apprentices, oversight of graduates, &c.

The visitors note with pleasure a moderate and healthy growth in numbers, a punctual and steady attendance, an intelligent and sustained interest, a sound and high moral tone, and results that in no way disappoint reasonable expectations.

The public interest felt in any professional school naturally centres in the work of its graduates.

In this view the Worcester School, when account is taken of its short career hitherto, need not fear comparison, we believe, with any in the country. Its graduates all teach (the only exceptions being one or two in a hundred, who prove physically infirm), and teach with almost uniform success and acceptance. Not a single graduate is at present known to be wanting employment in the schoolroom, while the demand is constantly pressing for more teachers than the school can supply.

As many as six applications from school committees in a single week have been refused, simply because graduates could not be found for the places; and several under-graduates during the present year have been induced to leave the Normal School, temporarily, to accept schools.

Of the class graduated in June, one of its twenty members has been prevented from teaching by ill health; the remain-

ing nineteen were promptly engaged, all in Massachusetts, and are teaching with good success at the present time.

Of the last four classes, ninety-four per cent are now teaching, — ninety-one per cent in this State.

From the above facts and others of the same tenor, with which it is not necessary to burden this report, the visitors conclude that the Worcester School is doing satisfactory work; and they therefore commend it with confidence to the community as worthy of continued support.

Valuable addresses have been given before the school at various times during the year as follows: —

Anniversary address, by Mrs. Julia Ward Howe; "School Government," by Mr. Eli A Hubbard; "Penmanship," by Mr. William I. Marshall; "Wordsworth," by Mr. Samuel Thurber; "Teaching," by Professor William P. Atkinson; "Common Typical Insects," by Professor Francis G. Sanborn; "Tennyson," by Mr. James T. Fields; "The Child," by Professor Benjamin F. Tweed.

The visitors acknowledge with thanks the gift to the school by Mrs. Chapin of an excellent portrait bust in marble of her late husband, the Hon. Henry Chapin, LL.D.

The usual statistics for the current year are subjoined: —

Whole number of pupils during the year	.	.	.	.	.	.	.	.	.	171
Gentlemen	.	.	.	.	.	.	.	.	.	7
Ladies	.	.	.	.	.	.	.	.	.	164
Number in the entering class	.	.	.	.	.	.	.	.	.	54
In February	.	.	.	.	.	.	.	.	.	22
In September	.	.	.	.	.	.	.	.	.	32
From Middlesex County	.	.	.	.	.	.	.	.	.	1
Plymouth	"	.	.	.	.	.	.	.	.	1
Worcester	"	.	.	.	.	.	.	.	.	48
Maine	"	.	.	.	.	.	.	.	.	4
Average age of those admitted: —										
In February	.	.	.	.	.	.	.	.	.	19 years 3 months.
In September	.	.	.	.	.	.	.	.	.	18 " 7 "
Occupations of parents: —										
Mechanics	.	.	.	.	.	.	.	.	.	20
Agriculturists	.	.	.	.	.	.	.	.	.	13
Professional	.	.	.	.	.	.	.	.	.	5
Overseers	.	.	.	.	.	.	.	.	.	4
Merchants	.	.	.	.	.	.	.	.	.	3
Laborers	.	.	.	.	.	.	.	.	.	3
Unclassified	.	.	.	.	.	.	.	.	.	6

Number receiving State aid . . . . .	26
Fall and winter term, 1879-80 . . . . .	10
Spring and summer term, 1880 . . . . .	16
Number in the graduating class (all ladies) . . . . .	20

(NOTE. — In compliance with a vote of the Board, no class was admitted in February, 1878; hence none was graduated in February of this year )

Additions to the library :—

	VOLS.
Text-books . . . . .	187
Reference-books . . . . .	102
Total . . . . .	— 289

Number of volumes in the library :—

	VOLS.
Text-books . . . . .	2,848
Reference-books . . . . .	1,459
Total . . . . .	— 4,307

E. B. STODDARD,  
WILLIAM RICE,  
*Visitors.*

WORCESTER, Dec. 1, 1880.

In connection with the report of this school are submitted the following items of correspondence :—

*Testimony of Superintendents, Committees, and Principals of Schools, in reference to Graduates of the State Normal School at Worcester.*

[Copied from the reports of 1880 exclusively.]

*Question.* “What order of ability did she show, on the whole, as compared with average teachers of like experience?”

“Far better adapted to school work than the average.”

“First order of ability, and improving every day.”

“The most valuable teacher we have ever had in the situation.”

“She is giving entire satisfaction in our school, and the trustees consider her an able and efficient teacher.”

“She showed marked ability at the start. If ten were the marking unit, I should place her eight.”

“Without hesitation, ‘the first order.’”

“Her ability is of a high order, far superior to the average.”

“We had no teacher in town, of *like experience*, who was anywhere near her equal.”

“As compared with teachers of like experience, she seems to me to be far above the average.”

“A + ability.”

"I think, more than an average."

"I consider her a superior teacher."

"Superior. She is a very capable teacher, and one we should be very sorry to lose."

"Much above the average."

"She is a superior teacher in that she manages to impart more solid information than the average teacher, and to form habits of accuracy in her pupils. Where we can have the principles and methods of normal training put into a practical form in a teacher's work, we see the wisdom of that training in good results that mark the development of mind long afterwards."

"Certainly superior to others of like experience who had no normal training; and fully equal to the average, if compared with normal graduates."

"*Superior* to average of the teachers we have known; and, as one of the school committee here for over twenty years, I should say so for the entire corps of teachers I have known in that time."

*Question.* "What traits of excellence, if any, did you observe in her instruction or management?"

"Thoroughness. That of judging correctly of the capacity of her pupils."

"Ability to make clear explanations."

"Thorough and accurate in her instruction, kind and discriminating in her management."

"She is intelligent, clear-headed; has used her opportunities (we think) faithfully; is self-possessed, keeps her balance well, and is still earnest and enthusiastic without extremes; interested in her work, industrious; maintains good order, and 'all goes like clock-work,' is the report of the immediately supervising committee."

"Committee agree in saying, 'no noticeable deficiencies.'"

"No fault found, no complaints made concerning her school. We should give her an unqualified recommendation to any one asking of her."

"Gentleness yet firmness in government. An aptness in imparting knowledge, and good judgment in putting force where it is needed."

"Cheerfulness, decision, energy. A bright, efficient, skilful teacher."

"Promptness, neatness, system, order; in short, *good common sense*."

"Excellent manner in school."

"She has now been in the school a year, and has given entire satisfaction to the *committee* and *community*. She is still teaching, and will probably remain as long as she chooses. She is energetic, industrious, persistent, clear, thorough, self-possessed, well-bred, scholarly "

"Her instruction is clear and pointed. She has much enthusiasm in her work, which is imparted to her pupils. Her management is excellent, and even worthy of imitation."

"The power to command the individual attention of her pupils, and to keep it (and this is done without any apparent effort), to keep seventy-four small children reasonably quiet with but very little discipline."



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SEVENTH ANNUAL REPORT  
OF  
THE BOARD OF VISITORS  
OF THE  
MASSACHUSETTS NORMAL ART SCHOOL.

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1881.

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## MASSACHUSETTS NORMAL ART SCHOOL, BOSTON.

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THE visitors of the Normal Art School respectfully submit their seventh annual report, covering the year ending June 30, 1880.

The lease of the premises in School Street, which had been occupied for five years, expiring July 16, 1880, it became necessary to provide accommodations for the school for another term of years. The attention of the Legislature having been called to the subject, and appropriate action having been taken, the visitors examined various premises, carefully compared their dimensions and relative cost, and finally selected the estate known as the Deacon House. A lease of three years from July 1, 1880, was agreed upon, at thirty-five hundred dollars (\$3,500) a year and taxes, with an additional agreement, that, if new heating-apparatus should prove to be necessary, the State should pay a sum not exceeding fifteen per cent of the cost thereof, and in no event to exceed four hundred dollars (\$400). Other quarters at less expense were proffered; but, after mature consideration, the amplitude and tastefulness of these premises were thought to give them the decided preference. The Board confirmed this action of the visitors.

It was hoped that the expense of moving, and of preparing this building for the school, would be but a small sum. It is found, however, to amount to one thousand seven hundred and ninety-three dollars, and twenty-four cents (\$1,793.24).

The lease of the School-street premises provided that, when vacated, they should be restored to the condition in which they were taken. It was thought by the visitors expedient to obtain an estimate from competent business men of the cost of such restoration, and settle with the proprietors of the building on that basis. Accordingly two first-class builders were chosen, —

Mr. James F. Marston, No. 43 Bristol Street, on the part of the visitors; and Mr. William Mackenzie, Nos. 77 and 79 Wareham Street, on the part of the proprietors,—who adjudged the expense at one thousand one hundred and seventy-five dollars (\$1,175). For these two items an especial appropriation will be needed. There will revert to the treasury of the State an unexpended balance of upwards of one thousand dollars (\$1,000).

Previous to the removal of the school to its new quarters, a detailed statement of the books, diagrams, models, drawing-copies, &c., belonging to the school, was drawn up by Mr. William T. Meek, curator, and is herewith submitted. These possessions, together with the cost of gas and various other expenditures, have been paid for from the incidental fund. The total receipts for that fund, including the balance on hand, \$1,046.27, were \$4,081.77; and the total expenditures, \$3,293.80; leaving a balance to new account of \$787.97. The necessities of the school, as related to this fund, have been so far provided for that it has been thought expedient to reduce the charge per pupil from \$10 per term, the former rate, to \$5, which is the now current rate. The charge in the evening school has been reduced from \$3 to \$2 per term.

The work of the school, it is believed, has never been better than during the past year. The ability of the teachers and their general fidelity in the class-room, joined to the enthusiasm and diligence of the pupils, have brought forth very satisfactory results. Showing marked improvement over former years, they are at the same time a prophecy of still better results in the years to come. In respect to appliances in books, models, diagrams, and apparatus generally, the school has greatly increased its facilities over the earlier years of its history, while surrounding itself with an appropriate atmosphere, and enriching itself with appropriate traditions. Such treasures, visible and invisible, necessarily wanting to a new institution, since they are garnered only by time, are slowly but surely enriching the school.

As the current year opens, the number of teachers, under the director, who rank together and receive substantially equal salaries according to the time they labor, are five; namely, Misses Carter and Hoyt, and Messrs. Briggs, Fuchs, and Bartlett. In addition to these there are employed three others;

namely, Messrs. Patten, Brackett, and Vonnoh, besides the curator and financial officer, Mr. Meek. All of these, it is believed, are faithful in their respective spheres. Mr. Peter Harris, who has been janitor of the building for several years, is still retained.

The renewed experiment with evening classes during the past year has been so far satisfactory that it will be continued through the current year. The number in attendance upon these classes last year was 76; the number already entered for the current year is 53. The statistics in full for the past year are as follows:—

Whole number belonging to the school:—

*Day Classes.*

Ladies . . . . .	138
Gentlemen . . . . .	31
Total . . . . .	— 169

*Evening Classes.*

Ladies . . . . .	41
Gentlemen . . . . .	35
Total . . . . .	— 76

*Summary.*

Day classes . . . . .	169
Evening classes . . . . .	76
Total . . . . .	— 245

Of those in attendance:—

Suffolk County furnished . . . . .	141
Middlesex County “ . . . . .	53
Worcester County “ . . . . .	17
Norfolk County “ . . . . .	14
Essex County “ . . . . .	10
Plymouth County “ . . . . .	3
Bristol County “ . . . . .	2
Hampshire County “ . . . . .	1
Hampden County “ . . . . .	1
	— 242
Maine “ . . . . .	1
Vermont “ . . . . .	1
New Brunswick “ . . . . .	1
Total . . . . .	— 245

Number in the entering class:—

<i>Day Classes.</i>									
Ladies . . . . .									61
Gentlemen . . . . .									11
Total . . . . .									72

<i>Evening Classes.</i>									
Ladies . . . . .									41
Gentlemen . . . . .									35
Total . . . . .									76
									148

Average age of those admitted:—

<i>Day Classes.</i>									
Ladies . . . . .									21 years 9 months.
Gentlemen . . . . .									18 " 10 "
General average . . . . .									21 " 4 "

<i>Evening Classes.</i>									
Ladies . . . . .									26 years 9 months.
Gentlemen . . . . .									27 " 10 "
General average . . . . .									27 " 3 "

Occupations of parents: House and sign painters, 2; wood and coal dealers, 2; farmers, 14; blacksmith, 1; civil engineers, 2; milk-dealer, 1; machine-agents, 3; lumber-dealers, 3; lithographer, 1; photographer, 1; boot and shoe manufacturers, 5; teachers, 9; director of art, 1; night watchman, 1; milliner, 1; lawyers, 5; manufacturer of machinery, 1; agents, 5; engineers, 2; carpenters, 10; fruit-dealer, 1; ministers, 2; merchants, 7; printer, 1; car-builder, 1; coal-shipper, 1; mechanics, 15; overseer, 1; seamstress, 1; bookkeepers, 9; baker, 1; curriers, 4; provision-dealer, 1; apothecary, 1; machinists, 3; manufacturers, 5; street-superintendent, 1; pattern-makers, 2; music-engraver, 1; superintendent tool company, 1; ice-dealer, 1; ship-owner, 1; watchmaker, 1; doctor United States Navy, 1; policemen, 2; retired, 3; anatomist, 1; thread-manufacturer, 1; miner, 1; mariner, 1; ship-builder, 1; janitor, 1; grocer, 1; freight-agent, 1; piano-forte-maker, 1; tailor, 1. Total, 148.

Number of those receiving State aid . . . . . None.

Number obtained certificates:—

	Ladies.	Gentlemen.	Total.
Certificate A . . . . .	31	8	39
B . . . . .	9	4	13
C . . . . .	3	2	5
D . . . . .	6	2	8
Total . . . . .	49	16	65

Number of diplomas of graduation as art masters or art mistresses:—

Ladies . . . . .	4
Gentlemen . . . . .	2
Total . . . . .	— 6

The number of students who have entered the school thus far for the current year is 243, of whom 114 are in class A. Of the total number, 175 are ladies, and 68 are gentlemen.

Of the six graduates of last year, three are teaching in Massachusetts, and one elsewhere, with what success we are unable to report. Three of the number also are known to be high-school graduates.

Though the General Court, at its last annual session, set apart a lot of land as a site for a normal art-school building, nothing has as yet been accomplished towards securing the means necessary to build thereon. The visitors are of opinion that steps should at once be taken looking to the procuring for the school of a permanent home. What success would attend an effort to raise money by donations, only the event can determine. It is by no means improbable that the land which has been set apart for the school might be exchanged for the estate in which the school is at present located. If the Deacon House shall prove to be satisfactory, it would undoubtedly be economy on the part of the State to make an exchange which would save what is now paid in rent and taxes, amounting to more than four thousand dollars. It would seem also to be a wise transaction on the part of the proprietors of said estate to exchange it equitably for property far more salable than is the estate itself.

A. A. MINER,  
CHAS. B. RICE,  
E. B. STODDARD,  
*Visitors.*

BOSTON, Dec. 2, 1880.



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FORTY-FOURTH ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD.

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# SECRETARY'S REPORT.

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*Gentlemen of the Board of Education.*

I RESPECTFULLY present herewith the Forty-fourth Annual Report of the Secretary.

## SUMMARY OF STATISTICS FOR 1879-80.

Number of cities and towns : Cities, 19 ; towns, 326 . . .	345
All have made the annual returns required by law.	
Number of public schools . . . . .	5,570
Increase for the year . . . . . 12	
Number of persons in the State between the ages of 5 and 15 years, May 1, 1879 . . . . .	307,321
Increase for the year . . . . . 3,485	
Number of pupils of all ages in all the public schools during the year . . . . .	306,777
Decrease for the year . . . . . 4,751	
Average membership of pupils in all the public schools for the year . . . . .	261,247
A new return, hence no comparison with the previous year.	
Average attendance in all the public schools during the year .	233,127
Decrease for the year . . . . . 1,122	
Per cent of attendance based upon the average membership .	89
Number of children under 5 years of age attending the public schools . . . . .	1,833
Decrease for the year . . . . . 101	
Number of persons over 15 years of age attending the public schools . . . . .	25,020
Decrease for the year . . . . . 2,583	
Number of towns which report having made the provisions concerning truants required by law . . . . .	264
Number of persons employed as teachers in the public schools during the year : Males, 1,133 ; females, 7,462 ; total .	8,595
Number of teachers required by the public schools . . .	7,264
Number of teachers who have attended normal schools . . .	2,228
Number of teachers who have graduated from normal schools .	1,911

Average wages of male teachers per month in the public schools,	\$67.54
Increase of 10 cents	
Average wages of female teachers per month in the public schools	\$30.59
Decrease of	\$2.91
Aggregate of months all the public schools have been kept during the school-year	49,474.8
Average number of months the public schools have been kept (8 months, 17 days)	8-17
Number of high schools	215
Number of teachers in high schools	494
Number of students in high schools	18,758
Amount of salaries paid to principals of high schools	\$255,601.60
Evening schools : Number, 116, kept in 26 cities and towns.	
Number of teachers, 389. Whole number of pupils, 10,360 : males, 7,299 ; females, 3,061. Average attendance, 4,503.	
Number of evenings, 1,370. Expense	\$65,783.42
Amount raised by taxation for support of public schools, including only wages of teachers, fuel, care of fires and school-rooms	\$4,062,562.74
Decrease for the year	\$41,288.91
Expense of supervision of schools by school committees	\$133,220.88
Salaries of superintendents of public schools	\$51,920.31
Expense of preparing and printing school reports	\$11,091.72
Expenses for sundries, books, stationery, maps, globes, &c.	\$110,490.41
Amount expended in 1879-80 for erecting schoolhouses	\$284,193.28
Amount expended for alterations and permanent improvements in schoolhouses	\$205,822.26
Amount expended for ordinary repairs of schoolhouses	\$121,570.35
Amount of voluntary contributions for public schools	\$7,100.08
Amount of local school-funds, the income of which can be appropriated only for the support of schools and academies	\$1,772,643.72
Income of local funds appropriated to schools and academies	\$105,207.81
Income of State school-fund paid to cities and towns in aid of public schools for the school-year 1879-80	\$69,908.78
Of this amount there was appropriated for apparatus and books of reference	\$3,980.36
Aggregate returned as expended on public schools alone, exclusive of expense of repairing and erecting schoolhouses, and cost of school-books	\$4,540,862.63
Increase for the year	\$126,108.68
Sums raised by taxes, and income of funds at the option of the towns, and the tax on dogs (exclusive of taxes for school edifices and superintendence), for each child in the State between 5 and 15 years of age	\$14.163
Increase for the year	\$0.446
Percentage of the valuation of 1880 appropriated for public schools, including only wages of teachers, fuel, care of fires and schoolrooms (two mills and fifty-six hundredths)	\$0.002 $\frac{5}{100}$

Schools in charitable and reformatory institutions: Number, 17; number of different pupils, 1,081; average number attending during the year, 681; number under 5, 14; number between 5 and 15, remaining July 31, 1880, 525; number of teachers, males, 3; females, 18; wages of male teachers, per month, \$114.58; female teachers, \$31.62; length of school, 12 months.

Number of incorporated academies . . . . .	73
Whole number of students for the year . . . . .	10,398
Amount of tuition paid . . . . .	\$237,520.89
Number of private schools . . . . .	350
Whole number attending for the year . . . . .	15,891
Estimated amount of tuition . . . . .	\$138,622.50
Amount paid to maintain public schools: For wages, fuel, care of fires and schoolrooms, repairing and erecting schoolhouses, printing reports of school committees, providing apparatus, and instruction of children in charitable and reformatory institutions . . . . .	\$5,163,404.76
Amount for each person in the State between the ages of 5 and 15 years . . . . .	\$16 80
Amount for each person in the State between the ages of 5 and 15 years, exclusive of expense of repairing and erecting schoolhouses . . . . .	\$14.81
Percentage of valuation of 1880 (three and twenty-six hundredths mills) . . . . .	\$0 003 $\frac{26}{100}$

### DEAF-MUTES.

Efforts are continued to bring under instruction all deaf-mutes in the Commonwealth. The American Asylum at Hartford, Conn., the Clarke Institution at Northampton, and the Horace Mann School at Boston afford the means of securing to this class a good education without expense to the individual, and, to the State, at a sum much below the real cost.

From the annual reports of these institutions, the following statements and statistics are derived:—

#### THE AMERICAN ASYLUM, HARTFORD, CONN.

The number of pupils under instruction, for the year closing May 1, 1880, was 249. Fifty-five left in June, 1 has died during the year, and 1 has been dismissed.

Three former pupils have been re-admitted, and 31 have been received. Of those admitted, 10 are from Massachusetts.

The principal, in his report, says of the diminished numbers,—

“An unusually large number left at the end of the school-year in June. One cause for this was the revival of business. Quite a number of children, who should have been allowed to return and finish their course, have been

detained at home to assist in replenishing the empty treasury of the family. In some cases family necessities have rendered this step imperative.

"Thirteen years ago this was the only institution for the education of deaf-mutes in New England. Now there is another institution; besides, there are four day schools, all drawing their pupils from the same territory, which was formerly left exclusively to us."<sup>1</sup>

This multiplication of schools has awakened a deeper interest in the general subject of deaf-mute instruction; and, as a consequence, the whole number of pupils under instruction in New England has largely increased. Massachusetts has been very active in seeking out children of this class; and yet it is to be feared some fail to secure the benefits of this and kindred institutions, liberally sustained by the benevolence of individuals and the bounty of the State.

### *Methods of Teaching.*

The methods of teaching deaf-mutes at the American Asylum, Hartford, Conn., are briefly described by the principal as follows:—

"We start with the idea that our aim must be, first and last, to develop the minds and characters of our pupils, to teach them to think for themselves, and to act from principle. As the first step towards these ends we adopt and use the language of signs,—the natural language of mutes,—as it opens to us at once a ready means of communication with them, rapid and sure; and this enables us to get at their minds, and to push forward their education and instruction much more rapidly than it is possible to do in any other way. The sign-language we use as a means, never as an end. We use it in conveying instruction, because it is a time-saving and labor-saving machine, and the school-life of mutes is so short that it renders the use of the most expeditious method imperative. We use it because the mutes understand it readily, and, when instruction is conveyed through it, can give their whole attention to the facts stated, and are not confused and hindered by an imperfect acquaintance with the medium used in imparting those facts. By the use of this language all the mental powers are stimulated, and are better fitted for progress in whatever direction they may be turned.

"The sign-language, however, is not to be a permanent reliance. It is not a written language; and the pupil must be taught as soon as possible to use the English language, that he may be brought into ready communication with the world about him, and may be able to use the printed page, upon which he must mainly rely for his mental progress after leaving school. This is the one thing at which the pupil must labor incessantly from the beginning to the end of his course, and in the acquisition of which the sign-language is an invaluable help.

<sup>1</sup> Two of these schools are in Massachusetts.

“Just as fast as the written language is mastered, it is brought into use, both for the acquisition of knowledge from books, and for the expression of ideas which have been acquired: the ability to read and to understand language always far outruns the power to use it. But the English language is, and always must be, an artificial language to deaf-mutes; and, though a large majority of them may attain to a very creditable proficiency in its use, only a few, and those under exceptional circumstances, gain a perfect mastery of it in all its idiomatic forms and nicer shades of meaning. Moreover, there is a class of mutes who never acquire a sufficient knowledge of spoken language to enable them to take in, through it, ideas of any breadth, who yet, through the sign-language, may receive moral and religious instruction, may become well informed on all ordinary subjects, may be taught to reason well, and may be fitted to become respected and useful members of society.

“In the instruction in language we follow a carefully prepared course of systematic language-building, devised by Mr. R. S. Storrs, an instructor in this institution, a full development of which will be found in two articles contained in the ‘American Annals of the Deaf and Dumb,’ vol. xxv., Nos. 2 and 4.”

The plan presented in the articles to which reference is made, contemplates the mastery of a *minimized* course of simple systematized English by all the class, even the poorer portion. It proceeds upon the theory that the deaf-mute is not to learn language as other children do: he is an exception, and to be trained by a systematic method, based upon the logical structure of the language.

He is to be made to feel, first, the antitheses of words naming *substance*, and words naming *actions*. These two classes of words will then be combined into sentences; as, “tree stands;” “apple hangs;” “boys see;” “dogs run;” “boy climbs;” “boy wants;” “dog runs,” &c.

These sentences may have visual illustrations in sentence-maps; thus, —

Boy	writes.
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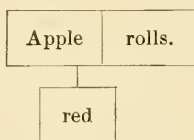
They must be made to represent the thought expressed. The pupils may be taught that the first of these is a name, word, or *noun*; and the second, an asserting word, or *verb*.

The object of the transitive verb may next be taught, and then illustrated in the sentence-map; thus, —

Boy	writes	
		letter.

Then may follow the teaching of the attribute of a sentence ;  
as, —

*Red apple rolls.*



This form may be enlarged ; thus, —

*Two large, round, red apples roll.*

*Two large, smooth, round, red apples roll.*

The attribute may also be taught as part of the predicate ;  
as, —

*Man lives = man is alive.*

The possessive may be taught as an attribute ; thus, —

*John's two horses ran.*

Next, the pronouns may be taught.

1. The pronouns used as subjects ; viz., —

*I, you, he, she, it, we, you, they.*

2. Those used as possessives ; viz., —

*My, your, his, her, its, our, your, their.*

3. Those used as objectives ; viz., —

*Me, you, him, her, it, us, you, them.*

By the sign-language the hand is used in a certain position to represent each of these uses. The subjective words may be taught by placing them upon a pictured hand, in such form as will represent their particular use. The other uses may be placed upon a pictured hand, in such form as will represent the respective uses of these words.

Arithmetical combinations may be taught with language ;  
thus, —

John has two marbles. Mary has one marble.
They have three marbles.

I have two marbles. You have three marbles.
We have five marbles.



The interrogatives may now be presented.

1. The words used as subjects, *who, what*.
2. Those used as objects, *whom, what*.
3. The possessive, *whose*. Also the adverbs, *where, when, how, why*. And the other words of this class: —
  1. Adverbs of place, *there, here*.
  2. Adverbs of manner (an indefinite number).
  3. Of time, *now, then, soon, formerly*.

The teaching recognizes five forms of predication, or *essential* varieties of the English sentence.

1. That in which the attribute and the assertion are expressed in the simple verb.

2. A modification of the above, for the sake of giving emphasis to the attribute; as, —

*Mother is kind.*

3. Also evolved from the first; as, —

*Man is teacher.*

A form used in identifying objects under two names or aspects; also, in defining objects by referring the individual to its generic class.

4. In which language takes the adverbial element, and makes it the main affirmation; as, —

*She is there.*

5. And, growing out of the above but little-used form, a form in which the adverbial idea takes the phrase form; as, —

*She is under the tree.*

The office of the conjunction “and,” in connecting any two distinct propositions, is finally taught.

This is not claimed to be a complete course, — not even a *minimum* one; but it may be claimed to be reasonably adequate to the *absolute* need of the pupil who is compelled to stop here.

The following letter, written at the end of the first year of an exceptionally bright class of pupils, may be at least suggestive: —

“MY DEAR MOTHER, — I am very well and happy. I study my lessons often. I learn my lessons well. I learn new words often. I like my school, and my books, and my teacher, and my classmates. My teacher is very kind. Fifteen teachers are here. They teach two hundred pupils. The pupils are happy. They study and work and play often. We enter the chapel often. A teacher prays there. I visited the city yesterday. It was



very pretty and busy. Many people walked fast, and drove many carriages and wagons. A pupil was sick and died. I saw her face. She was very white, and her eyes were shut. Some men carried her away. I shall go home soon. I shall see you and my many friends. I shall be very glad.

“I am, your affectionate son,

D. C.”

The advancement of the class from this point, by the same general method,—this simple phrase and clause construction,—would complete what may be called our *minimum* language-course; a course which every ordinary deaf-mute might be expected to *master*, and beyond which we would never attempt to conduct any except the brighter pupils.

In other branches of instruction, the methods of this institution, and the means and devices employed, do not differ essentially from those used in the common schools.

The following is an extract from the Annual Report of the directors and officers of the Asylum for 1879–80.

“No institution for the deaf and dumb can be said to be properly equipped for its work, which does not, in addition to the instruction given in the schoolroom, teach mechanical trades. All the boys of our school who are large enough spend three hours a day in one of our shops, where they learn tailoring, cabinet-making, or shoemaking. During the year these boys have made good progress, and have turned out work very creditable both to themselves and to the institution.

“We consider the instruction received in these shops one of the most important parts of their education. When they go out from school, they will have to depend upon their own efforts for support. If they have learned how to use tools, and have acquired a trade, they will find it comparatively easy to find work. Even if a boy, after leaving school, never pursues the trade he has acquired, the discipline of the hand, eye, mind, and practical judgment, and the foundation of industrious habits, will be of inestimable value to him.”

#### CLARKE INSTITUTION, NORTHAMPTON.

This Institution is especially adapted to the education of semi-deaf and semi-mute pupils, but others may be admitted.

During the year there were in attendance 82 pupils, ranging from five to twenty-five years of age. The average number for the year was 81. Of this number, 64 were from Massachusetts. Eleven were semi-mutes, 3 others were semi-deaf.

There entered, in the fall of 1879, 12 new pupils from five to sixteen years of age, virtually congenital mutes, except one who became deaf in his ninth year. The early instruction of semi-mutes who have been taught nothing before coming to

school, is often more difficult than that of congenital mutes. After a few years the benefit of the language they retained is seen, and they are then generally able to advance more rapidly than the congenital mutes who entered with them.

The primary school contained 62 pupils. They formed six classes, and were taught by six teachers.

The grammar and high school contained 20 pupils. They formed three classes, taught by three teachers.

### *Methods of Teaching.*

“The first Annual Report of the President of the Clarke Institution closed with these words: ‘Articulation is used as the means of instruction, because we believe it the best method for our pupils. The Institution is not, however, pledged to any unchangeable system, but only to that, whatever it may be, which experience shall prove to give the best results.’ An experience of more than thirteen years has confirmed this opinion concerning the essential characteristics of this system; but modifications in its application have been made.

“In the earliest years of the school, articulation was taught by imitation alone. Hearing-children acquire speech by the same process; the difference being, that, with the deaf, sight and touch must be used in place of hearing. For instance, if the sound of ‘f’ was to be taught, the teacher placed her upper teeth lightly on the lower lip, and sent out breath, letting the child feel it escape between the teeth and lip. The child was then shown how to take the same position, and give out breath. If the sound of ‘v’ was sought, the teacher took the same position, and put one hand of the child before her mouth to feel the breath escape, and the other on her throat to feel the voice-vibration. The teacher then produced the sound, and led the child to do what he had just seen and felt. In a similar way all the English consonant and vowel elements were taught. As soon as a portion of these were mastered, they were combined into syllables and words, the meaning of which the child was taught, either by showing the object or a picture of it, or, if an action, by performing it. In a little while these words were combined into sentences, which the child was taught to speak, read from the lips, and write.

“In 1871 Professor Melville Bell’s ‘System of Visible Speech’ was introduced as an aid in the teaching of articulation, and has induced some changes in the plan for the first years of instruction. The visible-speech symbols represent the positions of the vocal organs in producing the elementary sounds. When a child obtains a sound by imitation, the symbol is given him to represent it, instead of the arbitrary character used in the English alphabet. Sometimes a pupil gets the sound directly by observing the positions of the vocal organs indicated by the symbols. The organs of speech having been but little used, much practice is required before any fluency of utterance is attained. The symbols are used as the means of this preparatory drill. The child is acquiring a knowledge of language meanwhile through writing;

speech and lip-reading, as a means of communication, being introduced later in the instruction. The length of time which must elapse before allowing the free use of speech and lip-reading is not fixed, but depends upon the ability of the pupil to gain control of his vocal organs, and to acquire the power of speech.

“The manual alphabet and the sign-language are not used in any part of the course of instruction.

“The courses of study include the English branches taught in primary, grammar, and high schools. In some studies ordinary text-books are used, while in others teachers prepare the lessons for their classes.

“The majority of the pupils educated at this Institution are able to communicate with their friends and employers by speech and lip-reading, and often with strangers also.”

### REPORTS FROM GRADUATES AND OTHER PUPILS.

Of the graduates of the High Class of 1875, the Institution still retains the valuable services of one as special teacher of drawing. She also teaches a primary class. Her communication with the pupils is the same as that of any other teacher. Another has been learning dressmaking. She became deaf at three years and two months. Her friends think her speech improves. Of her lip-reading, she says: “I do not remember but one whom I could not understand, and it was an old lady. She would scream so close to my ears! And at another time, while walking home in the streets of Boston, an old lady stopped me, and inquired for a certain street. I asked to know *what* street, and all at once she put a bundle over her mouth, and spoke. Of course I could not know; so I said, ‘I do not know.’”

One, who retained speech, and was not very strong when in school, speaks of increased vigor, and says: “With the increase of strength comes an increase of confidence in myself, or perhaps a forgetfulness of self, which you will readily understand is a vast help, both in lip-reading and articulation.” She has been very useful in the home circle. One young man, a carriage-maker, has lost nothing in speech and lip-reading. Another has entered upon his last year at Stevens’s Institute, Hoboken. These both retained the use of language after becoming deaf. Of two young men, not graduating with the class, one is in business for himself as a printer and publisher, and writes that his speech and lip-reading remain the same as a year ago, though a friend tells us that his speech has improved. The other, though disheartened at his failure to find the work he likes, has not been idle, but has worked in gardens, or on farms,

as he could find employment, and has had a little work in posting books and making out bills. He desires a situation as book-keeper. He has visited the Institution during the year, and had lost neither in lip-reading nor in articulation. This class was composed of semi-mutes, who retained speech and the use of language, except one, who remembered only a few words. Some, who left classes of lower grades at this time, have failed to write this year.

Of the graduates of the High Class of 1877, a congenital mute writes: "I have no difficulty in understanding my acquaintances readily, and also my employer. Occasionally, when my employer is out, strangers and peddlers come in. I understand most all who talk about business. Most peddlers I cannot understand, because they talk too rapidly, or cut their words short." Having met this young man this summer, I know that his lip-reading has improved, and his speech has lost nothing. He is learning steel-engraving. Another, who became deaf at five years, and retained speech, writes: "I have learned to understand more the value of my speech and lip-reading. Although both are beset with some difficulties, they are a very great help and comfort to me. Without them I should be very miserable indeed. What a blessing your school has been to the few it has sent out, and is to be, I hope, to the hundreds yet to come!" In speaking of the two who graduated with him, he says: "I think I never met them in society without being surprised to see how readily they read lips, and were understood; nor have I ever seen either of them obliged to resort to writing. I am still in the wood-engraving business, close on my third year's apprenticeship. I like it as well as ever." He has engraved many of the pictures in the late numbers of "The Nursery." The other graduate of this class has been in the Normal Art School in Boston. There is no loss attending her speech and lip-reading. The latter is noticeably good.

Of the graduates from the Grammar Course in 1878, a congenital mute writes: "In regard to my speech, I am somewhat doubtful; but a great many friends of mine think I have improved very much in almost every thing since I left school. I don't think I have lost any thing in lip-reading. I don't have any trouble trying to read my friends' lips at all. My time is occupied in assisting my mother in the house-work, reading, and writing. I enjoy reading very much indeed." One, who became

deaf at one year of age, has been in a cabinet-shop and box-factory, but is now learning engraving in a watch-factory, which he hopes may furnish him with permanent employment. He says his speech is better than when he left school, and that people have very little trouble in understanding him. Another, who became deaf at four years, but lost her speech, says: "My mother thinks I talk very nicely, and my lip-reading is very good. Everybody can understand all I say." She is a dress-maker. The last graduate of this class to be mentioned is a semi-mute, working in a silk-factory. She writes: "Most people think my speech is better than a year ago; others think it is about the same. I am sure I have gained in lip-reading since last year."

A pupil, who left some five years since (a semi-mute), writes: "My speech and lip-reading were never better than now. The past winter I learned the dress-making trade, and am now doing well at that." Another, who left before graduating, writes: "My friends think I have greatly improved in speech and lip-reading. I think myself that I have improved in lip-reading, because very often, when on the laundry-wagon, I meet a great many strangers who stop me and inquire about the work." He is employed in his father's laundry.

One young man has been employed as foreman in a printing-office. Three others, of whose speech and lip-reading no record has been received this year, have worked respectively at drawing stone, in a job printing-office, and a machine-shop. One, who is a gas-fitter and locksmith, writes: "I generally talk with boss and other city men, and they understand me very well. I talk low, and try to talk nicely with my lips." One young woman writes that she has been employed in a shoe-factory, and that her speech and lip-reading have improved. Another, who is doing house-work in a family, thinks her speech and lip-reading are about the same as when she left. Still another thinks her lip-reading is about the same as before, but her speech better. She is a semi-mute, and is a frequent contributor to "Wide Awake," "Babyland," "Little Folks' Reader," and sometimes to periodicals for older people. A young man, who had been at work on a farm, now writes that he has work in a cabinet-shop.

All from whom we have heard are here reported. So far as we know, all our former pupils are at work, either in their



homes or elsewhere, and are using their speech and lip-reading to advantage. Hence we go on with courage for the future.

#### HORACE MANN SCHOOL, BOSTON.

The report of statistics for the last year is as follows: The school opened on Sept. 1, 1879, with 75 of the former pupils. Of the 80 members, who were reported in June of that year, 2 died during the summer vacation, 2 left at the close of the school-year to go to work, and 1 was transferred to the American Asylum. During the school-year 1879-80, 12 new pupils were admitted, 3 former pupils were re-admitted, and, for various reasons, 11 were discharged. At the close of the school-year there were 79 pupils, — 46 girls and 33 boys. Of this number, 20 were from towns in the vicinity of Boston, and 3 from other States. The remainder, 56, were from Boston.

#### *Methods of Teaching.*

The aims of this school are expressed in the annual report, just submitted to the School Board of Boston, from which the two following paragraphs are quoted: —

“The difficulties to be surmounted in this school can be appreciated by those only who are familiar with the disabilities of its pupils. To acquire the intelligent use of a vocabulary sufficient for the demands of daily life, to catch the spoken word as it falls from the lips of another, without the aid of a hearing-sense, and, still more, to be able to respond to it in articulate speech, — these would indeed seem to be tasks which cannot be performed by children. But, happily unconscious of their difficulties, the pupils bring to their work the quick perceptions of early childhood, its activity and its eagerness, so that, directed by the skill and encouraged by the sympathy of devoted teachers, they make evident progress from year to year. Although much time must be given to articulation and lip-reading, we can report that the children who entered the school at an early age, and have been under training for several years, are pursuing intelligently, though slowly, the course of study prescribed for our elementary schools.

“It has been said by educational authorities concerning schools for the bereft classes, that, whatever they accomplish for their pupils, they necessarily help to develop the best modes of instruction; and *teaching from the idea* is essential in this school, where unmeaning phrases and formulæ cannot be caught by the ear, and repeated in a parrot-like manner. Some of the elementary methods, now commended for general adoption, have been in constant and successful use in this school from the time of its establishment.”

Children known as deaf-mutes may be separated into two classes, — the congenitally deaf, and those who have lost hear-

ing by disease, after acquiring some knowledge of spoken language. While the end to be attained is the same for both classes, the needs of these children are so different in the beginning of their school-life, that the methods of instruction pursued must differ accordingly.

The children, deaf from birth, gain by observation, before entering school, a familiarity with the experiences of every-day life, which they have no means of expressing except by gestures. Recognizing this fact, our first work is to give them a more definite means of communication; and, to this end, we begin by putting on the blackboard, in script letters, the names of objects and actions with which they are familiar. These words are at once combined to form simple directive sentences, such as, "John, open the door," "Mary, bring a book," which the children eagerly illustrate, as proof that they understand the request. We begin at once to teach writing; and, through the imitative faculty, so strong in childhood, the pupils are soon able to copy words already known to them by sight. Questions and answers, and various simple statements, follow as rapidly as the children are able to comprehend them. A carefully arranged but flexible plan is the basis of all this work. Objects and pictures, plants, animals, minerals, articles of commerce, descriptions of people of other lands, these, and many other topics, furnish material for language lessons, which the children study and reproduce from memory, thus learning to use, as well as to understand, common language. Such lessons form a natural introduction to the study of geography and history, and lead to a use of the school text-books, which hearing-children study. As the deaf must depend so much upon the intelligent use of books and newspapers for information through life, it is desirable to encourage early the use of such text-books as are written in language sufficiently simple to be understood.

From the beginning, special instruction in articulation and lip-reading is given daily to all the pupils. As soon as some degree of facility in these is acquired, the lessons can be conducted mainly through spoken language, and the pupils can add rapidly to their vocabulary by speech and lip-reading at home, and among their hearing playmates. To show that the power to speak and to read the lips of others is retained by our pupils after they leave school, and to illustrate the practical use of this power, we may be permitted to refer to a former



pupil, who lately made a visit to the school. She was congenitally deaf: having had but two years of instruction in articulation in the early days of this school, she is now using speech with her associates and employers with greater distinctness and fluency than when she left us eight years ago.

The instruction to the other class of pupils — those who have become deaf by disease — differs essentially at first from that just described. The great effort is to preserve, in each case, whatever power of speech remains, slight though it be. This is done by encouraging the child to talk, and by associating his spoken word with its written form, and with its appearance upon the lips of the teacher. This combination of exercises not only serves to deepen the impression of the word or phrase, so that the child retains it both in thought and speech, but prepares him for the printed page, which he may begin to use at a much earlier period than the congenitally deaf pupil can, because of his previous knowledge of many simple but idiomatic forms of expression.

Children who lost their hearing when from five to eight years old, and who came to us after having been totally deaf for a year or more, with only a remnant of childish speech, and disinclined to use it, are now pursuing their studies as hearing-children do; depending entirely upon spoken language both at home and at school. Without training by this method, these pupils would probably have grown up as *mutés*, shut out from all intercourse except through signs and written language.

As in the other public schools of our city, sewing is a branch of the regular instruction, and the progress made is very satisfactory.

Six of our girls took a course of lessons last spring at the Boston Cooking School, in the same class with hearing-pupils, and, with some assistance from one of their teachers, were able to understand and to follow all the directions given.

Through the liberality of a benevolent lady, who has provided "Kitchen Garden" instruction for children in different parts of this city, two classes, of twelve pupils each, are having the advantage of a course of lessons here. The object of this "work in play" is to teach children, by means of miniature articles of household use, how to lay and clear tables, wash dishes, sweep and dust rooms, wash clothes, and make beds. Many valuable lessons in neat and skilful ways of doing house-

work are given, while, at the same time, the children are learning the names of household utensils, and the language incidental to their use. These lessons, like others, are studied and reproduced in connection with the regular language lessons of the school.

Plans for some industrial training, specially adapted to boys, are under consideration, but not yet matured.

### STATISTICS OF BENEFICIARIES.

#### *American Asylum.*

Number of Massachusetts beneficiaries Jan. 1, 1880 . . . .	73
admitted during the year . . . . .	10
discharged during the year . . . . .	20
in the institution Jan. 1, 1881 . . . . .	63

#### *Clarke Institution.*

Number of Massachusetts beneficiaries Jan. 1, 1880 . . . .	64
admitted during the year . . . . .	8
discharged during the year . . . . .	11
in the Institution Jan. 1, 1881 . . . . .	61

#### *Horace Mann School.*

Number of Massachusetts beneficiaries . . . . .	47
admitted during the year . . . . .	10
discharged during the year . . . . .	11
in the institution Jan. 1, 1881 . . . . .	73
Whole number in all the institutions Jan. 1, 1881 . . . .	197

#### *Financial Statement.*

Appropriated by chap. 8, Acts of 1880 . . . . .	\$40,000 00
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#### *American Asylum.*

71 beneficiaries for the term commencing March, 1880, \$6,212 50	
63 beneficiaries for the term commencing September, 1880 . . . . .	5,512 50
Clothing furnished beneficiaries for year ending July 1, 1880 . . . . .	581 90
	<hr/> 12,306 90

#### *Clarke Institution.*

64 beneficiaries, quarter ending March 31, 1880 . . .	\$3,130 00
63 beneficiaries, quarter ending June 30, 1880 . . .	3,150 00
58 beneficiaries, quarter ending Sept. 30, 1880 . . .	3,016 50
60 beneficiaries, quarter ending Dec. 31, 1880 . . .	2,966 50
	<hr/> 12,263 00

<i>Amount carried forward . . . . .</i>	<i>\$24,569 90</i>
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*Amount brought forward* . . . . . \$24,569 90

*Horace Mann School.*

76 beneficiaries from Feb. 1 to July 1, 1880 . . .	\$3,747 45	
77 beneficiaries from Sept. 1, 1880, to Feb. 1, 1881 . .	3,591 41	
Extra assistance to beneficiaries for year ending 1881 . .	195 00	
		<hr/>
		7,533 86
		<hr/>
		\$32,103 76

THE PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL  
FOR THE BLIND.

The following statements and statistics are compiled from the Forty-ninth Annual Report of the Trustees of the Perkins Institution:—

The annual appropriation of thirty thousand dollars was made to this Institution on condition that beneficiaries of the Commonwealth should be maintained and educated free of individual charge.

The number of blind persons in the Institution Jan. 1, 1880, was . . .	156
admitted during the year . . . . .	19
discharged during the year . . . . .	27
in the Institution Jan. 1, 1881 . . . . .	148
The expenditure for the year was . . . . .	\$42,476 53
The invested property of the Institution amounts to . . . . .	141,750 00

The main object of this Institution is to give to blind youth of both sexes the same kind and degree of instruction as is afforded to other children in the common schools of New England, and to train them up to industry and professional attainments. The course of education embraces all branches which are necessary to fit pupils for a life of enlightened activity and usefulness. Its graduates will bear comparison, in point of intellectual attainments, with those of any well-organized academy.

The course of studies is so arranged that instruction in music is blended with thorough mental culture and systematic physical training. Instruction is given on the piano-forte in harmony, counterpoint, and composition: the teaching extends to the organ, the flute, the clarinet, the cornet, and other wind-instruments; vocal music is also taught. Aside from the internal advantages for the study and practice of music afforded by the Institution, there are opportunities afforded for forming

a musical taste through the concerts and other performances of musical societies, theatres, &c.; to these the students are generously invited. Music has usually been considered to be the great delight and specialty of the blind, but they are equally devoted to the study of literature.

The work of embossing books, which was commenced in Boston fifty-nine years ago, is still carried on; and literature is made to offer itself to the reader through the tips of his fingers. The works of great authors are thus laid open to the minds of this unfortunate class of persons, no seeing-person being required to step in to interpret the language.

The Institution has a printing-press, and the means of making electrotypes from which the embossed page can be struck. Works of various kinds have been published either by the funds of the Institution, by subscription, or at the expense of generous and noble individuals. By the munificence of a friend, "Six Stories from the Arabian Nights," and "Twelve Popular Tales," all for children, also 'Higginson's "Young Folks' History of the United States," have recently been embossed and electrotyped.

By the same liberal hand the Institution is enabled to publish the manuals of ancient and mediæval history. Other liberal contributions have been made by which the usefulness of the printing department is constantly extending. A large number of embossed books have been printed and published by the Institution.

The following brief statement of the methods and means of instruction is furnished by Miss M. L. P. Shattuck, of the literary department of the Institution:—

"Our course of instruction embraces those branches taught in the public schools of the different grades, with the exception of the languages.

"As much of the work with the pupils, to be successful, must be individual, the most satisfactory results can be obtained in small classes. Our more advanced classes average from six to eight members; the lower classes, from twelve to fourteen members.

"The school is at present graded in seven classes; and the proficiency of the pupils is tested by quarterly examinations, and these also determine their class membership.

"Owing to the expense, and lack of funds to meet the demand, the supply of embossed books has always been limited. The time granted to each pupil by the State is of necessity crowded with work as he advances, so that he gives much less time to study than the seeing-pupil.

"For these reasons, it becomes necessary for the teacher to give the greater part of the information by conversation, and in reading.

"We require the higher classes to keep a brief outline of most of their work. These outlines are in the form of summaries, written in Braille characters, and are usually arranged by the teacher, and dictated after the class has studied the topic involved. If judiciously selected and arranged, these notes may be of considerable value to those who can themselves read so few books.

"Spelling, mental arithmetic, descriptive geography, grammar, rhetoric, literature, history, civil polity, and mental science are taught in the ordinary manner.

"Written arithmetic and algebra are taught by the assistance of type embossed with characters to represent Arabic figures, letters, and signs. These are set by the pupil in a frame as he proceeds in the solution of his problem.

"Diagrams used in the demonstration of geometrical problems are embossed by the teacher. The outline is traced on moderately thick paper, and punctured by a sharp-pointed stylus. The paper, thrown into relief upon the opposite side, gives an outline of the figure, easily traced when not too complicated. The diagram is traced by the fingers instead of the eyes; otherwise the work of the pupil and the method of the teacher is the same as that of the ordinary school.

"The careful development of the sense of touch and power of observation is imperative; therefore object-teaching should be made a prominent feature in the training of blind children.

"We have adapted the kindergarten system to our needs, using all the apparatus, except that which appeals to the sense of sight.

"We also teach from other objects.

"To give knowledge of the natural sciences successfully, tangible objects and embossed diagrams are necessary.

"For botany, we have a limited supply of woods, seeds, preserved fruits, flowers, &c.

"For geography, we have globes, and a full set of wall and dissectible maps.

"For physiology, a complete set of models imported from Germany, a skeleton, and manikin.

"For natural history, specimens illustrating the animal kingdom.

"We have a fair supply of minerals, glass models of crystal forms, and fossils, which we use in geology.

"We have very little apparatus for astronomy, but a fair supply of Ritchie's apparatus for physics.

"Reading is taught from embossed books, and also composition, memorizing of poetry and prose selections, writing in pencil, and Braille characters.

"The pupils hear three-quarters of an hour's reading five evenings in the week, selected from standard authors, magazines, and daily papers, and given to them according to their mental capacity.

"It has been the policy of this Institution since its foundation to pay particular attention to the industrial training of the blind. A system of instruction under a master of handicraft has been in operation here for nearly half



a century, and its main features form a very essential part of the system of education.

“Connected with the Institution is a work department for adults ; the principles of its administration do not differ in any essential point from those which govern any ordinary business establishment.

“In addition to the workshop for adults, there is a commodious shop for the boys, and suitable workrooms for the girls are also provided : the services of skilful and efficient teachers are secured ; and all the requisite machines, tools, appliances, and materials are furnished.

“The principal instrumentalities employed for carrying out the system of instruction are stated in the report of the director as follows:—

“*First*, Instruction in such branches of study as constitute the curriculum of our best common schools and academies.

“*Second*, Lessons and practice in music, both vocal and instrumental.

“*Third*, Systematic instruction in the theory and practice of the art of tuning piano-fortes.

“*Fourth*, Training in one or more simple trades, and work at some mechanical or domestic occupation.

“*Fifth*, Regular gymnastic drill under the care of competent teachers, and plenty of exercise in the open air.

“The workshops supply the blind with remunerative occupations, and thus save them from the grasp of poverty and the degradation of the almshouse. For the products of the workshops, orders are received and executed on a strictly business footing. Tuning and repairing of pianos and the manufacture of household utensils are among the occupations of the adults in the Institution.

“Uncommon advantages are offered for a thorough study of the art of tuning, both in theory and practice. To success in this art, blindness is no obstacle whatever. Indeed, it is claimed, that, all other things being equal, a sightless person makes a better tuner of piano-fortes than a seeing one. The claim is based in reason, and substantiated by facts.”

#### INCOME OF MASSACHUSETTS SCHOOL-FUND.

Cash on hand Jan. 1, 1880 . . . . .	\$83,455 07
Income during the year 1880 . . . . .	138,015 62
	<hr/>
	\$221,470 69
Paid cities and towns in 1880 . . . . .	\$69,908 78
educational expenses in 1880 . . . . .	70,174 86
school-fund, balance of educational moiety 1879, 11,346 28	
	<hr/>
	151,429 92
Cash on hand Dec. 31, 1880 . . . . .	\$70,040 77
From which there is to be paid cities and towns one-half income for 1880 . . . . .	69,007 81
	<hr/>
Leaving for outstanding bills and return to fund . . . . .	\$1,032 96
The Massachusetts School-Fund amounted	
Jan. 1, 1880, to . . . . .	\$2,075,540 37
Balance of educational moiety 1879 . . . . .	11,346 28
Amount of fund Dec. 31, 1880 . . . . .	<hr/>
	\$2,086,886 65

## PRESENT CONDITION OF THE SCHOOLS.

The returns received from the school committees of the towns show that there were maintained in the State the last year, 5,570 public schools, requiring 7,264 teachers; that the number of different teachers employed was 8,595; that the number of different pupils was 306,777; that the average attendance was 233,127; that the average membership was 261,247; and that the per cent of attendance, based upon the average membership, was 89. Included in the number of schools given above are 215 high schools, with 494 teachers and 18,758 pupils. There were also reported 73 academies, with 10,398 students, and 350 private and parochial schools, with 15,891 pupils. Besides these day schools, 116 evening schools were reported, with an average number of 4,503 pupils attending them.

The average length of the day schools was 8 months and 17 days.

The amount raised by taxation, and expended upon the public schools, exclusive of expenditure upon schoolhouses, was \$4,372,286.06. The amount not raised by taxation, but expended upon these same schools, was \$173,859.17. The amount expended upon schoolhouses, including the three items, new buildings, permanent improvements, and ordinary repairs, was \$610,585.89. If the amount raised by taxation be divided by the number in the enumeration May 1, 1879, it will give \$14.222 as the amount raised for each child between the ages of five and fifteen years. If, however, the amount not raised by taxation be included, it will give \$15.135.

If the statistics for 1879-80 be compared with those for 1878-79, it will be seen that the number of persons between five and fifteen years of age May 1, 1878, or the enumeration, was 303,836; and that the number of persons of all ages in the public schools, or the enrollment for the same year, was 311,528, a number greater than the enumeration by 7,692. The statistics for 1879-80 show that the enumeration May 1, 1879, was 307,321, while the enrollment in the schools for the same year was only 306,777, a number less than the enumeration by 544. For the first time in several years has the enumeration exceeded the enrollment; but this year it is greater by more than 500, and the change from last year to this is more

than 8,000. It is easy to see how the enrollment is almost invariably greater than the enumeration, because usually from 25,000 to 30,000 pupils, under five or over fifteen years of age, are found in the schools, who are not included in the enumeration. But how shall we account for so great a change as 8,000 in a single year? Of course we may say that the numbers attending the schools this year have been less than last year by more than 8,000; but the average attendance has been less this year by only 1,122, and therefore we must look elsewhere for the reason. The returns show that the number of pupils over fifteen years of age in the schools was 2,500 less than it was last year. They also show a slight increase in the attendance upon private and parochial schools, and these facts sufficiently account for the decrease of 1,122 in the average attendance. But they do not account for the difference of 8,000 in the enrollment. I think the enrollment in former years has shown a larger attendance than there really was, from counting the same pupil twice in the same year. The names of the pupils must of course be put upon the registers each term, and will therefore be found recorded two or three times in the year. If, during the year, the pupil changes from one school to another, his name will appear in two or more registers. So difficult was it for the school committees to determine the exact number of different pupils in all the schools of the town, and so confident were some who had studied the subject that names were duplicated in the returns, that, a year ago, enrollment-sheets were placed in the registers, with instruction that no pupil's name should, in the same town and in the same year, appear upon two of them. This greatly lessens the labor of the school committees, and gives a strong probability, a certainty even, if the instructions are followed, that the enrollment is correct. This, I think, sufficiently accounts for the change from last year to this.

For the first time an effort was made to secure this year the average membership in the schools of the Commonwealth. The average attendance had for years been returned; but, according to directions given in the registers, if a pupil's attendance upon the school amounted to ten days, he was to be regarded a member for the entire term. At the request of his parents, and with the approval of the school committee, he may have taken formal leave of school, that he may go to work in a fac-



tory or upon a farm, or to learn a trade; or his father may have moved into another town, and the boy have entered a school there; or he may have sickened and died. Still, in either case, he was counted a member of the school in which he had gained membership by an attendance of two weeks, and must be marked absent day by day for the remainder of the term. If, in the town to which his father has removed, he enters a school three or four weeks before the end of the term, he must be accounted a member for the whole term; and the absences while he was attending the old school would count against the new, and those while attending the new would count against the old. This seems manifestly unjust to the teachers, who feel, and with reason, that their reputation depends somewhat upon their power to secure a constant attendance. If they are not responsible for the absence of a boy for the entire term, it is not easy to see how they can be for the half-term before he enters the school at all, or after he has gone out to work, or is attending another school. Hence the effort to secure the average membership, and to hold the teachers responsible for the non-attendance of their pupils only while they are members. As this has never been asked for before, and is a new return, no comparison can be made with any other year. The average membership for the year was 261,247; and this, compared with the average attendance, gives a per cent of attendance, 89. This is a favorable showing, and may be made better or worse when the mode of obtaining the average membership, and its purpose, are better understood.

#### THE MASSACHUSETTS SCHOOL SYSTEM.

The Commonwealth of Massachusetts has established, for all the children of the State, a system of public schools and a system of public instruction. This system of schools and this system of instruction have been established by State authority, because it is believed by the people who constitute the State that the ends for which a free State exists can be secured in no other way than by placing within the reach of all the means of obtaining a sound education. And more than this, it is believed that a republican State cannot exist unless the persons constituting it are trained to think, each for himself.

The people of a free State must also know their duties and their rights, and must be trained into the ability and inclination

to observe them. For these reasons our public instruction is not only free to all, but all are compelled to accept the free gift. The schools of the Commonwealth are therefore free, and the attendance upon them compulsory.

If we examine our free-school system, and our statutes requiring attendance upon the schools, we shall not find any thing arbitrary in the one or tyrannical in the other.

It is true the State has taken the instruction of the youth somewhat into its own hands. It has established a system of schools for elementary and scientific instruction. It compels, with a penalty, every parent or guardian who has under his control a child between the ages of eight and fourteen years, to send that child regularly to school at least twenty weeks every school-year. It compels the pursuit of such a course of studies, and the use of such school-books, as may be prescribed by the State authorities; and it commands the people to support, for at least six months in the year, schools enough for all the children of school-age. And yet the State, in requiring all these things, cannot be said to act in an arbitrary manner, if the results which our free schools produce are necessary to the well-being of the State, considered as a unit or as composed of individual citizens. Nor can it be said to act like a tyrant; for the State with us is the people themselves, and our school-laws are the expressions of the free will of the people.

It is the will of the people of this Commonwealth, as expressed in the laws they have deliberately and voluntarily made, that a system of free public schools shall be established and supported by a public tax; that this system shall include elementary and secondary or high schools; that the elementary schools shall teach facts, and train the powers of observation, and do what is possible towards laying the foundations of moral character; that the high schools shall change a knowledge of facts into scientific knowledge, and shall add to the power of obedience to the will of another, the higher power of self-control.

These are the two grades of schools required to be maintained by the laws of the Commonwealth. The system including the two grades is complete, as it establishes and requires to be maintained all the schools necessary to furnish an opportunity for communicating that knowledge and general training required for the well-being of every individual considered to

be an end unto himself, and for the well-being of the State considered to be a community of individuals.

### THE DUTY OF THE TOWNS.

Having made all necessary provisions for the establishment of all necessary grades of schools, the State charges the towns with the responsible duty of carrying these provisions into effect.

It requires the towns to appoint school officers, who are to determine how many schools the towns shall support, to see to it that suitable schoolhouses are provided, and that well qualified teachers are chosen for the instruction of all the children who may legally attend the public schools.

The manner in which this duty is performed is of the greatest concern both to the children and to the State. A badly constructed schoolhouse will be likely to prove the direct occasion of deformity and disease. A poor teacher will be in constant danger of starting off his pupils in the wrong direction after useful knowledge, and will fail in inspiring them with a desire to live a noble life.

No greater mistake can be made by a community of persons, than communities not unfrequently make, in permitting their children to be put to school in improperly constructed schoolhouses, and under the moulding influences of incompetent instruction.

If we consider that the future physical and mental condition of the children will depend largely upon the physical and mental influences to which they are subjected in early life, during that critical period of existence when habits and character are formed, we shall not treat as of little importance any element that enters into the constitution of those influences; nor shall we neglect to provide pure air, and proper light and temperature, and comfortable seats in our schoolhouses, for the young bodies which will grow in them into physical strength and beauty, or into physical weakness and deformity; nor shall we, for any conceivable reason, permit a weak, untrained, inexperienced teacher to live in the presence of our young children, under such circumstances as to afford an opportunity for him to stamp something of his own image on their receptive minds. We must remember, that, in selecting the teachers, we are choosing the characters we would have our children possess. We

know that our minds are trained to what they are to be, by their own activity. The teacher determines what thoughts his pupils shall think, what emotions they shall feel, and so what choices they shall make, by what he teaches, by his method of teaching, by the temper of mind he exhibits as he teaches, and by the ends he offers to his pupils as the rewards of their labor.

If he teaches what is not worth knowing, or if he teaches in such a manner that his pupils cannot learn, then his teaching will warp or weaken their intellects. If he exhibits a bad spirit or a vulgar taste, then his pupils will be led to such an exercise of their sensibilities as will corrupt their emotional natures and their good manners. If he is wanting in any of the virtues, he will lead those under his care to place a low estimate on that highest principle of human action, a sense of duty; and, when his pupils come to take their places in society, we shall simply have an increase of the number of those we cannot trust.

Selecting good teachers, and furnishing them with good means for their work, are two important steps towards producing a good school. But a failure will come, after all, unless the community gives to the teachers and to the schools its sympathy and cordial support, remembering that to teach a public school is the most difficult, the most delicate, and the most important work human minds are ever called to perform.

Home influences must co-operate with the school, or the grandest results which the latter is adapted to produce will not be realized. The best efforts of the teacher are generally powerless when opposed by public sentiment or by parental authority.

Again, the State has charged the school committees with the responsible duty of making courses of studies for the schools, and such as shall be adapted to occasion the knowledge the pupil should obtain and the training his mind should receive. It has also made provisions for the regular attendance upon the schools of all children between the ages of eight and fourteen years. Nor can these things be neglected without incurring the displeasure of the State, and placing in great peril the good order of society, to say nothing of the disastrous consequences that ignorance always brings upon the private lives of individual men.

But in this Commonwealth the welfare of the public schools

is not neglected, in so far as a living interest in their prosperity is concerned. Ever since 1647, when it was ordered by the court that every township of fifty householders should appoint one of their number to teach all the children that might be sent to him to read and write, under a penalty of £10 if the ordinance was disregarded, and further, that every town of one hundred families should maintain a high school to fit boys for the university at Cambridge, ever since that day, Massachusetts has taken the lead of all other civilized States in her zeal for popular education.

The past is well enough, or as well as our knowledge of what ought to be done and our ability to do would permit. We are now to provide wisely for the future, and we must remember that the people will not be satisfied with simple repetitions of what has been done in the past.

We know more of the laws of physical health than the fathers knew, and more of the effect of external things upon the developing characters of the young. This knowledge invites and urges us to provide schoolhouses for our children, which are constructed in accordance with the principles of comfort and good taste.

#### METHODS OF INSTRUCTION.

We are supposed to know more than the people of ancient times of the science and art of education. This suggests to us the necessity of reconstructing our courses of studies and our methods of teaching, to the end that both may be better adapted to the wants of the minds of those who are to be trained up for modern life under their influences. Once the work of the common-school teacher was so simple that no special preparation or experience was deemed necessary to furnish him with the learning and skill necessary to all required success.

Now teaching is a science and an art, — an art to be practised only by those who through a careful study have learned the science, and through a successful experience have mastered the art. No wise modern parent is satisfied if the schools do nothing for his child but train him to a few formalities, which bear no more than a faint relation to ideas, or to the power of doing any thing either necessary or useful. On the contrary, he desires to have him taught the elements of all knowledge, and have him taught in such a way that he will secure for himself



the elements of a good training. He desires to have him leave the school, furnished with the knowledge and skill necessary to make him a successful and useful man. If these ends are ever secured, it must be done through the agency of trained teachers. Schools that satisfy the demands of modern times can be produced by no other means. It requires learning and skill on the part of the teacher to conduct in a successful manner and to the best ends the most elementary school exercises.

Take elementary reading for an example. The untrained instructor would be likely to teach first the letters of the alphabet: this would be followed by exercises in combining the letters into syllables, and, after a time, the syllables into words. The words would then be pronounced in the reading lessons, and the reading exercises would pass as successfully accomplished. Now, if we examine such exercises for their real significance, we may find that those who performed them did not associate their words with any ideas, nor their sentences with any thoughts; and, more than this, that the mental activity involved has no tendency to produce the mental training which enables one the better to discharge the duties of life.

How often do we hear primary pupils, under unskilled teachers, laboring with general abstract definitions, such as belong to scientific knowledge, and can be comprehended only by those who understand the philosophy of things. To what meaningless forms in arithmetic, grammar, and geography, will mechanical teaching subject the pupil; requiring him sometimes to repeat the forms until their repetition implies but little more intellectual activity than is involved in the exercise of the mechanical principle of action.

Such teaching not only fails of securing the ends it is designed to attain, but it puts to sleep the mental powers of those affected by it, not to be aroused, it is to be feared, until the seed-time of life is forever passed, and the time when we have a right to look for a rich harvest has already come.

The teacher should be so prepared for the duties of his office that he will be able to look beyond the formalities of his work to the knowledge he should teach, and beyond the knowledge to the training he should occasion, and beyond the training to the character he should lead his pupils to form. Then, the formalities employed, the knowledge communicated, and the training given, will all be controlled by an intelligent judgment concerning the great end school-life is designed to secure.

The schools of the Commonwealth should be supplied with such teachers, and the teachers should be supplied with all possible facilities for the successful application of their art. For these ends there must be a generous support and an efficient supervision of the schools. The one will supply the means by which good teachers are secured and rewarded for their services, and by which the means for effective school-work are obtained; the other will direct all to the most productive results.

It seems to me that it should be the chief concern of the towns to perfect their educational institutions by supplying them with the most skilful teachers and the most efficient supervision; for all the good things pertaining to social and private life will flow out of the right training of the youthful mind.

Education may not create a faculty, and yet it makes us what we are to be. The character of men and of nations is determined by the educational processes to which they are subjected.

“In 1616 the Scotch Parliament passed a law providing for the support of a public school in every parish at public expense. Lord Macaulay says that the effect of this law was not immediately felt. But, before one generation had passed away, it began to be evident that the common people of Scotland were superior in intelligence to the common people of any other country in Europe. To whatever land the Scotchman might wander, to whatever calling he might betake himself, in America or in India, in trade or in war, the advantage which he derived from his early training raised him above all his competitors. If he was taken into a warehouse as a porter, he soon became foreman. If he enlisted in the army as a private, he soon became an officer.

“Scotland, meanwhile, in spite of the barrenness of her soil and the severity of her climate, made such progress in agriculture, in manufactures, in commerce, in letters, in science, in all that constitutes civilization, as the Old World has never seen equalled, and as even the New World has scarcely seen surpassed.

“Bancroft, the great historian, says that in the laws establishing common schools lies the secret of the success and character of New England. Every child, as it was born into the world, was lifted from the earth by the genius of the country, and in the statutes of the land received as its birth-right a pledge of the public care for its morals and its mind.”

If we desire to preserve our institutions, and maintain a high rank among the free States, it must be done through the public schools. From the report of the United States Commissioner of Education we learn that in Turkey, whose influence as a

nation is rapidly declining, the schoolhouses are in ruins, and public instruction has ceased to exist.

History and reason both declare education to be of so much importance to all public and private prosperity that it should become the chief concern of every free State. The towns should see to it that their schools are the best that modern ideas can invent, and that every well child of school-age is in school. If these things are neglected to save money or time or labor for the accomplishment of other ends, then the towns, with all their civil institutions, will soon go to decay.

The best people will leave for other communities where well-trained men are considered to be the most exalted products that human institutions can produce, and where a higher civilization offers to the people the blessings that flow from knowledge and a love of truth.

#### AN EXAMINATION OF RESULTS.

Are the public schools of the Commonwealth producing such results as justify the State in compelling their support?

To answer this question in a manner satisfactory to an intelligent man, a philanthropist, and a patriot, — for a satisfactory answer can be given to no other, — it must be shown, 1st. That the schools do succeed in educating the children of the State; 2d. That the education communicated trains the children into good citizens. The word children in this connection does not mean every child, but the great mass of children, or children considered as a class.

Educational institutions, like those of religion, have always failed, in some individual cases, of producing their legitimate results. A portion of the whole will be ignorant and vicious in spite of the schools or the church.

The first question proposed, then, resolves itself into this: Do the public schools teach, and the children, as a whole, acquire the knowledge which the statutes of the Commonwealth require to be taught?

On the first day of May, 1879, there were in the State 307,321 children between five and fifteen years of age.

Of this number, ninety-one and seven-tenths per cent were enrolled on the school registers as members of the public schools. Of those enrolled, nearly ninety per cent were in daily attendance upon the schools, an average throughout the State of



eight months and seventeen days of the year. In this account no notice is taken of the 26,853 pupils whose ages are under five or over fifteen, but who are also regularly in the schools. From these statistics we know that the children are in school. What is the result in so far as learning is concerned?

This may be inferred, 1st, From the State Census of 1875, showing the amount of illiteracy in the State at that time; 2d, From Mr. Walton's report of the Norfolk County schools; and 3d, From personal experience and observation.

In 1875 the native-born illiterates over twenty-one years of age, in Massachusetts, numbered about two-fifths of one per cent of the population. In 1850 the percentage was about three-fifths of one per cent, showing a decrease of one-fifth of one per cent in native-born illiterates over twenty-one years of age; while the population increased during the same period, that is, from 1850 to 1875, over sixty-six per cent. Reference is here made to native-born persons only, as those born in other lands have not generally been in the schools long enough to be much affected by them.

It appears, then, that no more than two-fifths of one per cent of the native population of the State have entirely escaped from the educating power of her public schools.

A more definite and comprehensive account of what the schools are doing is now on record of the schools of one of the counties of the State. In 1878 the school-children of Norfolk County were examined in reading, writing, and arithmetic. The examination in reading included oral and silent reading; in writing it included written composition, with whatever is implied in the topic, as choice of words, construction of sentences, use of capital letters, punctuation, spelling, and penmanship; in arithmetic it included, for the lower grade of pupils, the application of the four fundamental rules to the simple combination of numbers; and for the higher, the solution of some problems in percentage and mensuration.

Except in oral reading, the exercises of the examination were conducted in writing. Five thousand papers were written by the pupils of the county. These papers were collected and examined by a committee of honorable gentlemen, who were selected for their skill in school affairs, and who would be moved in their acts by no other principle of action than a desire to find out the real condition of the schools examined.

The results of the examination were expressed in tables, so that the reader, if he happens to be supplied with an index, may know not only the absolute standing or rank of the different schools of the county, but their relative rank also. In addition to the tables, lithograph copies of some of the poorest, best, and medium quality of the papers were published, by means of which the reader may know the value of the work done by a few of the individual authors of the three classes of papers mentioned.

What judgments should be passed upon these schools as they have exhibited themselves to us through the medium of this thorough, fair, and honest examination?

It appears from the tables that the average of perfect work done in all the exercises given to be performed, is fifty-seven per cent, — an amount of perfection seven per cent higher than is required for a diploma from some of our best colleges. The examination exhibits many and great defects in the system of instruction practised in some of the schools of the county; but it shows an average of excellence, that, if carefully analyzed, ought to encourage the most zealous and nervous friend of our Massachusetts system of public schools. From the lithographs we learn that some of the work done by the pupils was poor indeed, that some was well done, and that some was marked by a high degree of excellence, and that the average of all was creditable to the schools.

If a similar examination of any class of schools or of persons, including even those who claim to be competent critics, should be made, it is doubtful whether a more satisfactory result would be obtained. It is true that the examination revealed in many cases a higher order of inventive talent than of accurate and comprehensive scholarship; but this may be accounted for without supposing the Massachusetts system of public schools to be a failure, as some have attempted to prove.

It must be remembered that many of the pupils had never been accustomed to written examinations; that the presence of official examiners would naturally absorb a large amount of the attention of some of the more timid ones; that a considerable number were the children of foreigners, and had not been long in the schools; that the examination was a somewhat difficult one to pass; and finally that there always will be some in every school who find it difficult, if not impossible, to master the spelling of some of our English words, or to construct them into

good English sentences, or to write with an artistic hand, or to make an independent application of the fundamental principles of arithmetic.

The schools are not to be held wholly responsible for those who have few advantages for study, or for those who cannot easily learn. And yet a plan of examining a school or system of schools, that should reject from the examined either the poorest or the best of their members, would be justly liable to suspicion, and would pass for nothing with those who wish to know the whole truth.

The schools deserve credit for their best products; and, as a general thing, they should be held somewhat responsible for their poorest. If those who judge the results of a school examination know all the conditions affecting them, they will have data enough for correct judgments. But, if they confine their attention to the poorest or best of these results without analyzing the conditions under which they were obtained, or without reference to the general average of them all, they show themselves to be subjects of prejudice, and unworthy of confidence. It should not be forgotten, or concealed from public inspection, that, through an elaborate and impartial examination of the school population of an entire county, there was obtained fifty-seven per cent of perfect answers to questions prepared by a carefully selected committee, who could have no motive for deception, or for resorting to tricks to obtain high ranks.

The examination has confirmed some opinions that were pretty well confirmed and generally entertained before,—that the schools, with all their imperfections, are, on the whole, doing creditable work; that trained teachers accomplish by far the best results; and that an efficient superintendence is the agency to which we must look for the conditions of good schools. With good teachers and competent superintendents, working together, unphilosophical modes of teaching will disappear, and the schools will be organized so as to furnish opportunities for the best results.

The changes we need, and which are plainly suggested by the Norfolk examination, do not call for any modification of our State system of schools,—that we have already shown to be complete,—they call simply for a modification of the system of instruction now in use in some of our schools. The schools of Norfolk County are certainly no better than the

schools of any other county ; and they may be taken as a type of all others, without exalting the others above their true merit.

In addition to the testimony of the census and the examination, personal observation and experience confirm the opinion that the Massachusetts schools, on the whole, are successful in teaching what they undertake to teach ; and that pupils, on the whole, are successful in learning what is taught. We conclude, then, that our schools, measured by an absolute standard, are more or less imperfect ; relatively we believe they have no superiors, considered merely as intellectual institutions.

Does the education obtained in the public schools have a tendency to make good citizens and good men ?

This question can be answered properly by those only who observe for general as well as particular results. We must turn our attention to the present social condition of the State, and compare this condition with that of any former period of its history, if we would judge correctly of the moral results of our educational institutions. It is a difficult task to determine all the causes that have contributed to our present high state of civilization.

Some element peculiar to our people as a race, or to our institutions for the development of the race, or to both, has made Massachusetts to be an intelligent, prosperous, humane, free, Christian Commonwealth. We have been accustomed through all the years of our history to attribute our intelligence, prosperity, humanity, freedom, and Christianity, somewhat to the training given in the public schools. We know that these things exist together in Massachusetts. We know also that wherever in the world the people are not trained in public schools there is neither general intelligence nor public virtue. From these circumstances we judge of the schools as we judge of other things, and infer that they do hold some philosophical relation to those results with which they are always found connected.

Besides this, without the testimony of history, we should suppose our schools would have a tendency to train the children into good people. For the teachers of these schools are known, as a class, to be Christian men and women. As a class they observe the principles of Christianity in their daily lives, and, through the controlling influence of the instinctive desire to

imitate, found in the constitution of every child's mind, they almost unconsciously train up their pupils to be like their teachers. The teachers do more than furnish models for the children to imitate. They endeavor to teach them to be truthful in all their school relations, and to observe the natural rights of one another. They inspire in them a love of useful knowledge. They train them to be obedient to authority, and to be loyal to their country. While the direct work given the public-school teachers to do has reference to teaching the branches of learning named in the statutes of the Commonwealth, and to that intellectual training which may be produced by a study of these branches, they are constantly turning attention to the moral quality of actions, and to the obligations arising from a knowledge of right and wrong.

External influences may sometimes defeat the efforts made by the schools to build up good moral, as well as intellectual, characters; but it is not rational to hold them responsible for those results which are produced by causes with which they hold no relation.

It is quite generally conceded, and statistical information collected from all civilized countries confirms it, that ignorance is the parent of poverty and crime. "This is naturally so: for ignorance unfits a man to earn his daily bread; it takes from him all feeling of self-respect and moral responsibility, and leaves him an easy prey to temptations from within and without."

"The criminal statistics of France in 1870 showed that the educated criminals, as compared with the entire educated population, were in the proportion of 1 to 9,291; while the illiterate criminals were as 1 to 41 compared with the whole number of illiterate persons,—proving the proportion of criminals in the uneducated classes to be 226 times as great as in the educated classes."

"One of the foremost prison-reformers of Italy of the present century estimates the illiterate among the convicts of Belgium, Denmark, the Netherlands, Italy, Saxony, and Sweden, at about one-half of the prison population."

"Recent official returns show that the percentage of those who could not read on entering prison was 56 in Austria, 87 in France, and from 60 to 92 in the different provinces of Italy."

Of those in prison in Ireland, 22 per cent of males and 63 per cent of females were illiterate.



In a report prepared for the International Prison Congress of 1872, it is stated, that, in Massachusetts for eight years past, the statistics show very nearly one-third of all prisoners to be wholly illiterate, and a large number of those who could read and write were found to be very deficient in education.

Although Massachusetts is a manufacturing State, and has a large foreign element among her people, two conditions that have great significance in the discussion of social questions, still with us pauperism does not keep pace with the growth of population. Between the years 1855 and 1875 there was a decrease of full-support paupers of 20 per cent, while the population increased 45 per cent. The number of State paupers decreased 10 per cent during the same period.

Everywhere intelligence reduces pauperism, as it does crime. England pays for pauperism and crime five times as much as for education, while Switzerland pays seven times as much for education as for pauperism and crime.

Education, as we generally use the term, may not always, in individual cases, prevent either poverty or crime; but reason and recorded facts force us to believe that it has a tendency to do both. Highly civilized communities frequently appear at disadvantage in their statistical reports on account of their high moral condition.

As a good man sometimes appears to a superficial thinker worse than a bad one, from the account each gives of himself; so does a good social State appear worse than a corrupt one, from their statistics taken without the ability or the inclination to give them a proper interpretation. The better the social state, the more comprehensive will the terms "crime" and "criminal" become.

The more we know and the better we become, the more ability we shall have to discover our imperfections, and the more inclined we shall be to adopt all necessary measures for reform.

These things must be taken into account whenever the social statistics of one State are compared with those of another, or when the statistics of a State are compared with those of the same State at any former period of its existence. By such a comparison we shall find, that, in whatever pertains to a Christian civilization, Massachusetts has made constant progress through all the years of her history since the invention and establishment of her system of free schools.

If we turn our attention to the humane character of our institutions of reform and of charity, if we consider how fully protection and justice are secured to us through our government and courts of law, if we think of the prosperity and happiness we enjoy, and of how much Massachusetts has done for other States by her example and through the influence of her children now laboring in all lands, we shall find abundant reason for increased confidence in those institutions by whose educating power these things have become possible.

### RESULTS OF METHODS OF TEACHING.

There is a prevailing opinion existing in the minds of a certain class of educators that methods are of little importance. Many go further than this, and believe that to make our acts conform to a method is to give to them a mechanical character, which deprives them of all appearance of being the products either of genius or of free intelligence.

Such opinions are especially mischievous in our educational affairs, as they encourage educators to think little of the philosophy of education, or of those general principles on which alone can be founded either a true science or art of teaching.

Every intelligent act implies a knowledge of its end from its beginning.

All ends attained by human agency are attained by the use of some means.

Success in attaining ends depends on two things,—on the use of the right means, and on using them in the right way. The way of using means or of performing our acts is called *Method*.

Those who have no definite methods to use can have no definite ends to obtain. But all teaching worthy of the name has its well-known ends to accomplish. These ends may be discovered by an analysis of any good statement of what teaching is.

Teaching has been defined to be that act which consists in presenting objects of thought to a mind so as to occasion the activity which produces knowledge and a development of the powers.

The legitimate effects of teaching upon him who is led by it to study and practise are to occasion his mind to acquire knowledge, a training of its powers, and a method of perform-

ing all mental and physical acts. These three ends may be occasioned by *teaching*. The effects of *methods* of teaching will be perceived in the character and amount of knowledge obtained, in the kind and degree of development produced, and in the nature of the method of activity acquired.

*Teaching* occasions knowledge, development, and method.

*Methods of teaching* determine the qualities of these things. This last proposition is to be proved, and first it must be shown that a method of teaching determines the quality of knowledge obtained.

Teaching may be attempted by two methods: one is called the objective, the other the descriptive or written method. One presents to the mind of the learner whatever is to be studied and known; the other substitutes for objects of knowledge the language by which they may be described. In the one case the kind of knowledge obtained by study would be of its true objects; in the other it might be simply of the signs of knowledge of objects, and it would be of signs only, if the objects had not at some time been presented.

A knowledge of objects may have three qualities: —

1st, It may be clear, or such as to enable its possessor to set the object of it clear from all other objects. It is such knowledge as is expressed by a name denoting all the qualities of an object taken together as one whole; such knowledge as the mind always obtains of an object of thought when first presented, and before its qualities have been unloosed from one another, and have become themselves the objects of special attention.

2d, Knowledge may be distinct, or such as may be expressed by propositions whose subjects name the things known, and whose predicates affirm of them their qualities. Distinct knowledge is obtained by an analysis which turns our attention from an object viewed as a whole, to its individual qualities or elements. After such mental processes have been experienced, the mind is prepared to describe its knowledge by the use of language which names not only the things known, but names, also, whatever belongs to them.

3d, Knowledge may not only be clear and distinct, but it may also be comprehensive. Comprehensive knowledge is of classes, and therefore is general and abstract. Clear knowledge is of individuals considered as wholes; distinct knowledge is



of individuals considered to be made up of properties, or elements; while comprehensive knowledge is of groups of individuals or of classes, and is expressed by definitions which affirm what qualities or attributes are common to every individual of the class defined.

The quality of the knowledge obtained by study in school will be clear or distinct or comprehensive in proportion to the kind and degree of activity the mind of the pupil is led to exert by the method of teaching employed.

The only occasion for genuine and complete knowledge of new objects is the presence of the objects themselves.

Let it be remembered that the word "object" is used in this discussion to mean any thing of which the mind may be conscious. It includes in its signification all manner of subjective, as well as objective, objects. It names any state of mind, or product of a state, which may be brought before the mind for its consideration, with no less propriety than it names a material thing.

After a knowledge of objects has been once obtained, and proper signs associated with it, the knowledge may be reproduced through the use of its signs; but its first appearance in the mind must, in all cases, depend on the relations objects of knowledge are made to hold to the knowing mind.

No teacher who has had a successful experience in teaching, or who has made a successful study of the way in which the mind acquires its knowledge, will be likely to deny the truth of this statement, nor will he neglect to observe it in his teaching.

But great mistakes are sometimes made by those who think they are observing this first principle of true teaching; for, in teaching, models and pictures are too frequently substituted for the objects themselves. This substitution is sometimes necessary; but, whenever it is made, the things represented are not in themselves taught. Only so far as illustrations of things are the things themselves, can they occasion adequate and complete ideas. A picture may represent the color, form, and size of a natural object, but it cannot represent its structure and functions, nor any of its secondary qualities.

Children are, indeed, interested in observing visible representations of things. They learn to describe them with facility, and they not unfrequently deceive themselves and others into the belief that they have correct and adequate notions of the

things represented. But when they are put to the test it is generally found that the objects of their thoughts are, to a degree, creations of their own imaginations rather than realities known through observation.

Teaching has for its object new truth. Illustrations by pictures and models may occasion true ideas of some of their relations, but they can never fully present the objects they are intended to represent.

Illustrated books for elementary lessons in language and in natural history now abound, and they are better occasions for first ideas than are words; but no teacher of the elements of natural science, who has been well taught himself, or who knows the laws that control the mind in its acquisition of knowledge, will ever accept a picture of a thing as a substitute for the thing itself. I believe that our teaching is now threatened with a danger arising from an unphilosophical use of illustrations, by which the mind of the learner is prevented from coming in contact with the true object of his knowledge.

If words only are employed, either no ideas at all will be suggested, or they will be those some other mind than the mind of the learner has invented and described, and there may not be any thing in nature corresponding to them.

From what has been said, we may learn that methods of teaching determine the kind and amount of knowledge communicated or occasioned. Another result produced by methods of teaching relates to the character of the training acquired by the mental powers through their exercise in learning. In describing this result it may be well to show, 1st, What right mental training is; and, 2d, How it is to be secured. Whenever the mind exerts its power in a right manner upon appropriate objects of thought, it becomes conscious of two results: one result is the possession of new knowledge, the other is an increased facility in the exercise of the powers by whose activity knowledge is acquired. The facility itself is called mental culture, or mental training.

The faculties are trained by their right use, and the kind and amount of training produced will depend upon the kind and amount of use to which they are subjected. One kind of use will give the ability to produce effects; the other will give an increased capacity for receiving effects. This statement expresses a most important truth for teachers to observe, and should be fully understood.

Whenever the powers of the mind discover a truth or solve a problem by an activity whose source is found in the powers themselves, they are called active powers.

The powers are called passive when their activity consists in simply comprehending the truth other minds have discovered and explained, or in understanding the solution of problems other minds have given.

The mind exerts its active power whenever the objects of its activity are brought into its presence for observation or for reflection. It exerts its passive power whenever it is engaged in learning, through the medium of language, the knowledge other minds have obtained.

That method of teaching which presents to the learner whatever is to be studied and known, and simply directs his mind to an orderly plan of study, will cultivate active power. Assigning lessons to be learned from books, or communicating knowledge by explanations in the form of lectures, will cultivate the passive powers only.

The difference in the results of the two methods is most marked. The one trains the pupil to invent his own ideas of things, and to think his own thoughts. The other prepares him to understand, it may be, what others have done; but it gives him no power to do any thing by an independent exertion of his own power.

Ability to use language is acquired by using it, to solve problems by solving them, and to perform any physical or mental or moral act by performing it. A law of the faculties forbids the acquisition to be made in any other way. The intelligent teacher knows this, and so from the first he puts his pupils to performing those acts that he would have them acquire the power of performing. If he wishes to train his pupils to read, he does not waste his strength and theirs in teaching and requiring to be learned the letters of the alphabet, or the elementary sounds they represent, or spelling, but he puts them to performing those acts that constitute reading. A literal and persistent application of this plan has led to the marked success some modern teachers have experienced in teaching reading. A similar success would be attained in all forms of school-work if the same principle of teaching should be made universal.

Mental training is dependent not only on a right method of

activity, but on the degree of it. I am not sure that serious mistakes are not now made in attempting to make school-work entirely easy as well as absolutely delightful. It may not be wise to compel the pupil to grope in the dark for results that a small amount of well-directed labor would easily produce, nor to add that severity to his labor which will make it a disagreeable task for him to perform; but it must not be forgotten by those who are engaged in training the human mind, that an earnest and prolonged activity is the only price that will purchase a vigorous development. A consciousness of such activity and of the good results associated with it is the source of a higher joy than is experienced in mere amusement. As the mind acquires strength only by an exertion of its own power, it must not be relieved from hard and independent labor by any attempt on the part of the teacher to take the burden of work upon himself. He must not attempt to think and speak for his pupils, nor to consider his work is skilfully done, when he has made easy, by explanations, whatever is assigned to be performed.

The use of such a method may make cheerful work in the schoolroom; but, when the results are known, it will be found that the minds of those who have been subjected to the method, have lost their active power for want of exercise, and that they have in its place simply the capacity to receive information, and to imitate what they see done by others. That method of instruction is faulty which attempts to amuse the mind into the possession of a knowledge of what is real, and into a state in which it can control itself by an independent exertion of its own strength. The active powers of the mind will be led into a proper exercise when the teacher presents to them the objects of study, and does nothing more than direct them to a methodical and vigorous activity in producing required results. The passive powers will be properly exercised in receiving the effects produced by the presence of whatever demands attention, and in comprehending the directions given for the proper exercise of active power. Good teaching prepares the pupil for solitary work, and puts into his possession the means of study, — that is, the plan of study, the end to be attained, — and then leaves him to use the means in accordance with the plan. If the mind is directed to a good manner of acting, then the degree of energy it exerts will determine the amount of train-

ing it will receive, and the amount of reliable knowledge it will obtain.

The third result produced by a method of teaching is found in the method of thinking or study it communicates. Not much knowledge or mental discipline can be obtained by the longest courses of study now taught in the schools; but a good method of teaching will always present a good plan of study, and occasion that discipline of mind which will enable it to use the plan in the further pursuit of knowledge after the pupil has left his school. A plan of study should be constructed in accordance with two principles, one of which is found in the nature of knowledge, the other in the nature of the mind. Knowledge is of two kinds, elementary and scientific. We obtain elementary knowledge when we observe things, and know them and their qualities as mere existences or facts. This is the kind of knowledge young minds possess. They call things by their names, and describe their qualities; but they never say much of causes or of classes.

After some years of study of individual objects for facts pertaining to them, the student will gradually come to know that they have common qualities, by means of which they may be arranged in classes. He also begins to understand the causes of the phenomena he has observed, and so comes into possession of general truth. This is scientific knowledge. The two kinds of knowledge bear certain fixed relations to each other.

1st, Elementary knowledge must exist before scientific knowledge is possible.

2d, The one must be obtained through observation, the other through reflection.

3d, Elementary knowledge should be learned, not in a miscellaneous order, as is generally the case, but in the order in which it will be used in the study of the sciences.

There has been up to this time almost no attempt made by elementary teachers to teach facts with special reference to the sciences that are to be built of them. This failure has confused our elementary teaching, and made it, in its relations to any definite results, both aimless and barren. To prevent this, the elementary teacher must bear constantly in mind that the immediate ends to be secured by his young learners are a well-arranged knowledge of facts, and a right training of the observing powers, with all that is implied in these results. Both the



kind of knowledge to be learned and its arrangement are to be determined by the demands which will be made upon them in scientific study. The *training* to which the observing powers should be subjected is to be inferred from a knowledge of their modes of activity and the conditions of their development. The necessity of storing the young mind with an orderly arrangement of facts, that have been obtained by a systematic and thorough observation of their objects, renders a philosophical method of teaching and study imperative.

A clear and distinct knowledge of individuals finds its value in the relation it holds to what is universally true, and general truths furnish us with the only data from which we may derive the rules of conduct that direct our lives. The mistakes that men make in forming their notions of general truths are largely due to a loose and limited observation of facts. If one is subjected to a wrong method of observing the present, he must fail in his judgments of the future, and be compelled to live an unproductive, disappointed life.

The results of methods of teaching will be modified by the spirit with which they are applied. If the teacher applies his teaching with sole reference to some immediate good, such as is found in knowledge, or in any thing that cannot be joined to the mind as a part of itself, then the highest and best ends of teaching will not be obtained.

To teach a child to read to the end that he may read, is as full of folly as to train him to keep still to the end that he may be quiet. Reading and quietness may become means to some good end, but they should never be exalted into the place of ends themselves. Teachers, and especially young teachers, are often in danger of attending too exclusively to the formalities of their work, and too little to the purposes for which they labor.

A method of teaching may be so applied as to inform the mind, and yet leave it without the power of an independent pursuit of the truth, or of an independent use of it after it has been found. A method of school government may be so administered as to produce conformity to established rules of conduct, and at the same time to stimulate into a vigorous growth the malevolent affections, and even to create the very spirit of disobedience. Methods of teaching and of school government, used without a knowledge of and a constant reference

to the relations they hold to the power of self-control they are designed to occasion, will be likely to degenerate into a meaningless if not a mischievous formality.

Comenius, John Locke, and Pestalozzi are classed among the most famous educators of modern times; but they owe their fame, not so much to the fact that they invented new methods of teaching, or established new educational institutions, as to the fact that they called the attention of the people to the true end of education,—the harmonious development of all the faculties of man. A want of method and of the true spirit of teaching will unfit the pupil of the lower schools for successful work in the schools above, and rob the scientific student of that general knowledge, and that complete development of his powers, which fit a man for a successful life. Thus we find that the legitimate results of a good method of teaching are real knowledge, a trained mind, and a good method of exerting its active power. Some phases of our common-school work have been sensibly improved during the past few years. Doubtless some forms of teaching have been introduced that will not stand the test of time. Yet something will be saved, and we shall find that progress has been made.

What we now need is some wise man to take hold of our unsystematized elementary work, and organize it with reference to the relations different topics of elementary knowledge hold to one another, and to the relations they all hold to the sciences. We need also to have our methods of teaching conform more fully to the laws of mental activity and mental growth. And, finally, we need to have impressed upon our minds a more exalted notion of what the results of school-life should be.

Details of school-work are important objects of study and practice when considered in their relations to a true education, but they become contemptible when chosen as ends. The value and dignity of a method of teaching appear only when it is associated with the great end it is adapted to occasion,—the harmonious development of all the faculties of man.

#### SCHOOL-DISTRICT SYSTEM.

The Massachusetts school-district system was established in 1789.

The Act directing the towns to divide their territory into school districts was as follows:—



"Be it enacted that the several towns and districts in this Commonwealth be, and they are hereby, authorized and empowered, in town meetings to be called for that purpose, to determine and define the limits of school districts within their towns and districts respectively."

It will be observed that this Act made provision simply for dividing the townships into such convenient portions of territory as should facilitate the attendance of pupils upon the schools.

The districts thus established could exercise no powers, nor did they have any duties to perform. The schools, as before, were controlled entirely by the towns.

An Act of the Legislature in 1800 authorized the selectmen of the towns to issue warrants for district meetings; the voters were directed to choose a clerk, to raise money for the erection of schoolhouses and the purchase of the necessary utensils; and the assessors of the respective towns were required to assess such sums of money as might be voted by the several districts. By the statutes of 1817, chap. 14, school districts were made corporations in name, and were empowered to hold in fee simple, or otherwise, real or personal estate for the use of the schools.

It was not until 1827 that districts were authorized to elect prudential committees to whom were intrusted the care of schoolhouses, and the important duty of contracting with teachers.

The district system, established in 1789, has been productive of many evils and but little good.

Under the system the responsibility of school affairs rests upon no one.

If the town so determine, the prudential committee can nominate the teacher and fix his salary.

Suppose a prudential committeeman nominates and presents a teacher to the town committee for examination. He frees his own mind from all feeling of responsibility in regard to the merits or demerits of the candidate, by thinking, that, if the one presented is not a suitable person to be employed, he will be rejected on examination by the examining committee. On the other hand, the examiners escape from censure by showing that the prudential committee, being the authorized agent of the district, must have selected such a person for teacher as the district chooses to employ. The town committee will be inclined to allow the district to bear the responsibility of its own acts,

and disinclined to incur unnecessary displeasure by rejecting one whom the district has chosen to employ.

Under such a system there can be no security for the selection of competent teachers.

The prudential committee may be influenced by the ties of kindred, or by personal friendship, or by obligation of some sort, to select a teacher who he knows has little or no talent, native or acquired, for his work. In such cases the examining committee are often affected by the most embarrassing circumstances.

It is often a serious matter for the young candidate to be rejected; and the district that is thus deprived of his services, frequently, making a common cause with him, becomes greatly disturbed.

Rather than injure the feelings or the reputation of the one presented for examination, or disturb the harmony of a district, the committee will often grant a certificate to one who gives no evidence of fitness for the responsible office of teacher in a public school.

In this way many a poor teacher finds his way into the schools to their great injury.

Public officers are likely to be faithful to the trusts committed to them in proportion to their personal responsibility.

When the duty of selecting, examining, and supervising the teachers is committed to one and the same body of men, a feeling of responsibility is generally awakened, and to such a degree as to prevent personal considerations or indifference from warping the judgment or lessening the zeal in any of those things which pertain to the vital interests of the schools.

Again, on account of the small size of many of the districts, and the small amount of taxable property in them, funds enough to support good schools cannot be raised: consequently the schoolhouses in these districts will be poor, the school short, and the teachers of the cheaper sort.

Poor schoolhouses are the sources of mischief to the pupils, from bad ventilation, insufficient heat, or an improper distribution of it during the cold months; from an improper distribution of light, and from their want of the means of teaching.

Short schools do an injury by compelling those whose school-life is limited to a few years at most, to be out of school a large portion of this important time.

Poor teachers do an injury that cannot be measured, by teach-

ing in such a manner that neither knowledge nor mental training is communicated, nor good habits of thinking and acting are formed.

Under the town system the inhabitants of one part of the town will have as good a schoolhouse as those of any other part.

The town system renders it possible to reduce the number of schools so that all can be continued for a proper time, and supplied with good teachers; and that waste of time, labor, and money, caused by employing a teacher for one pupil, or even for ten pupils, can be saved.

As a fact, the poorest schools are found in towns that still cling to the district system.

Two reasons are given to account for the present existence of the system in any of our towns:—

1. "The aversion our people have to change."

2. "The notion some entertain that the districts are little democracies, in which the people have some vested rights that nothing but usurpation can take from them."

In reply to the first reason, aversion to change is a prejudice, and should not prevent an abandonment of what is old as soon as something new and better has been discovered.

In regard to the democracies, the town is the smallest unit that can properly exist in our political system.

"The rights of the district are all conferred by the town, and held at its will.

"A district is a part of the town, set off by the town, and existing until abolished by the town. It has the power, unless the town otherwise determines, to provide a schoolhouse, and furnish it for the use of the school.

"It can choose a prudential committee if the town permit; and the committee, when chosen, can purchase fuel for the schoolhouse, and select a teacher, whom the town committee may either accept or reject; but, if accepted, he becomes thereupon subject to their control."

Even the right of a district to hold property is defined in vol. 97, Massachusetts Reports, p. 426, as follows: "The property is held by the district, not for its own corporate use, nor the use of its inhabitants, as property, but as a means for the performance of an important function of public service."

The responsibility of this service is upon the town.

There is no reason why the district system should longer

exist. It opposes the improvement of the schools while it increases their expense.

Horace Mann said that the law of 1789, authorizing the towns to divide into school districts, was the most unfortunate law ever passed by our General Court.

In 1869 the Legislature abolished the system by a unanimous vote in the Senate, and with only nine opposing votes in the House. A few towns the following year petitioned to have the system restored. They were generally those towns that had suffered most from the operation of the system, and were holding a low rank in every thing relating to public schools. In 1870 the system was partially restored against the will of a large majority of the people of the State.

About forty towns in the State voted to return to the system.

It is for the interest of these towns to make their schools as good as possible.

1st, For the sake of the children, many of whom receive all their school instruction in the public schools.

2d, For the good of the towns, whose moral, social, and material prosperity is so largely dependent upon their educational institutions.

It would therefore seem wise and necessary that what remains of the old school-district system should be at once and forever abolished.

#### ASSOCIATIONS OF SCHOOL COMMITTEES.

A new institution has been organized in the State, within the past few years, called "School-Committee Associations." Prior to the year 1877 no such associations had been organized in the State.

Teachers and school superintendents had each their organizations for discussing questions relating to school-work; but the school committees, in whose hands the statutes have placed the entire control of the schools, had never met together in convention for mutual conference.

Nine flourishing associations of school committees now exist.

Among the questions discussed last year at their meetings were, "What shall be done with the truant children?" "What use should be made of text-books?" "Should the towns furnish text-books free of cost to the pupils?" "What are the defects of the schools, and how can the defects be removed?"

These questions invariably suggested that other question of the greatest importance just now to the schools, "How can the small towns be supplied with special and efficient superintendence of all their public schools?"

The associations, with scarcely a dissenting voice, have passed resolutions favoring the division of that portion of the State not now supplied with superintendents into districts for the employment and support of such school officers.

The committees have brought themselves to feel the necessity of employing trained teachers, especially in the primary schools.

Methods of instruction and of school government have also been the objects of their deliberations.

At a late meeting of the Hampden Association a resolution was unanimously passed in favor of petitioning the present Legislature to abolish what is left of the school-district system in the State.

The results produced by our school-committee associations are already visible. Four of them appointed sub-committees to construct courses of studies for the schools of their counties. These committees have attended to their duties; and four courses have been made out by them, three of which are now on trial.

More care than formerly is now exercised in the selection and examination of teachers, and more attention is given to methods of teaching. Many of the schools are better supplied with the means of teaching.

There has been within two years past a large increase of attendance upon the schools. Old prejudices are giving way to judgments founded on the reason of things, and an intelligent spirit of progress seems to be taking the place of a blind conservatism.

It is recommended that these associations be formed in every county of the State, and that they hold their meetings at least twice in the year.

#### TENURE OF SCHOOL-TEACHER'S OFFICE.

If the tenure of the teacher's office was for a term of years, or during his good behavior in it, some good results would follow.

1st, A prolific source of anxiety, arising from the uncertainty connected with annual elections, would be removed from the teacher's mind. The quality of a teacher's work depends, in



no small degree, on the state of his emotional nature. If he is unhappy, his judgments will not be reliable, and his courage will be taken away.

2d, Permanency in office will add dignity to it, as well as security.

If the teacher's office be made honorable and sure for him during his good behavior, the best talent in the country may be induced to enter the profession, with the idea of making teaching a life work. Now, the uncertainties of the teacher's life are so many and so perplexing that those who have talent and skill and opportunities for other forms of labor will not teach.

3d, An idea of security in the office will encourage those who have a natural taste for teaching to prepare themselves thoroughly for it; and, while they are practising the profession, they will not turn their minds to contriving other means of earning a living if by chance they should be suddenly deprived of their situations.

4th, If a teacher is made subject to an annual election, he will be in danger of performing some acts for the special purpose of holding his office. It cannot have a good effect upon the mind of the teacher to conceal his sentiments, or to labor in any way directly to the end that he may continue in office.

5th, If the teachers are elected frequently and some votes are cast against them, they will become timid; and the opposition expressed will lessen their influence over their pupils, and in the community where they teach. No harm can come from the passage of a law permitting school committees to elect their teachers for a long term of office, as the statutes already provide for the dismissal of teachers at any time for a sufficient cause.

### COURSE OF STUDIES.

Much has been written in the former reports of the Board explaining the principles that should be observed in constructing a course of studies for the public schools. Several courses emanating from school committee associations have been published with the reports. Great interest has been awakened by these published courses, and the school authorities of many towns are now studying to adapt them to their own grades of schools and plans of instruction.



It seems best, therefore, even at the risk of repetition, to state the general principles that form the basis of a correct course of studies, and to make out a course somewhat in detail.

The principles that constitute the science of education are found only in a knowledge of the mind. All courses of studies, the order in which the different topics should be arranged, the method of teaching employed, the ends to be secured for the pupil by his school-life, are to be determined by a reference to the nature and destiny of the human mind. For this reason all who have any thing to do in educational affairs should form their plans and regulate their practices in accordance with the known principles of education.

Education has been defined to be that state of the mind in which it has the ability and inclination to exert all the energy of which it is capable in discovering the truth, in feeling the pleasure or pain which a knowledge of the truth is adapted to excite, and in choosing the best ends.

The state called education is brought into existence by right acts of thinking, feeling, and choosing. As these acts seem to build up the mind into the state called education, they may be called, when taken together, instruction, which means a building-up within. Taken in this sense, instruction is the same as right activity.

Teaching presents to the mind of the pupil objects of thought as occasions for activity and knowledge.

Study is a prolonged thinking for knowledge, and for the activity which produces education. A course of study would then be a systematic plan of thinking, which should call into an orderly exercise all the powers of the mind as they are developed.

*A study* is any topic of thought.

Studies are a collection of topics; and a *course of studies* is a collection and systematic arrangement of topics, such as are adapted to practical use.

From these definitions it will appear that education is the end to be secured by school-work; instruction is the cause of education; teaching is the occasion of instruction; and a course of studies is the means to be used in teaching.

On account of the relation a knowledge of facts pertaining to individuals holds to general knowledge, or knowledge pertaining to classes, and on account of the relation which the

two kinds of knowledge bear to the capacities of the mind in its different stages of development, every course of studies should be divided into two parts, — one called elementary, and the other scientific.

An elementary course of studies should consist of a systematic collection and arrangement of topics to be pursued for the facts that may be learned of them. This course is called elementary, because the knowledge and mental training acquired by the one pursuing it prepares him for scientific study. A scientific course should consist of a right arrangement of topics to be studied for general truths.

The following elementary and scientific courses of studies have been arranged with reference to the wants of all pupils, considered to be ends unto themselves, and with reference to the relations one branch of study holds to another.

The powers of mind to which the elementary course of studies is to be presented, are, 1st, The powers of observation, by whose activity the mind is furnished with sensations and perceptions; 2d, The representative powers, memory and imagination, by whose activity past mental states are reproduced, and thoughts of parts of different wholes of the same kind are combined in a thought of a new whole unlike any whole ever perceived.

Memory enables the mind to reproduce thoughts of the real; imagination, thoughts of the ideal. The observing powers are active whenever external things are the objects of consciousness. The representative powers are active whenever language or the signs of our thoughts are the occasions of our mental activity.

## ELEMENTARY COURSE OF STUDIES.

### *Course for Primary Schools.*

Reading, Spelling, Elementary Composition, Numbers, Linear Drawing, Singing, Gymnastic Exercises.

READING. — The method of teaching reading may be learned from an analysis of the act. Oral reading consists of forming ideas and thoughts occasioned by the printed or written form of their names and expressions, and in pronouncing them so as to excite similar ideas and thoughts in the minds of others. Silent reading differs from oral in that it omits oral expression.

A preparation for reading on the part of the pupil would appear, from the definition, to include, 1st, The acquisition of a knowledge of objects to be named and described; 2d, A knowledge of the words, or language with which the description is made. It would therefore be the duty of the teacher to present to the pupil the right occasions for these two kinds of knowledge.

The right occasion for a knowledge of objects of thought is the presence of the objects themselves; and for a knowledge of words is the presence of the words as wholes, and as signs of ideas.

The order of teaching is, 1st, To present the objects described in the reading lessons; 2d, To teach their oral names; and, 3d, To teach the printed or written forms of the names.

The young pupil should be taught from the first not only to speak the words used, but to construct them for himself in their written forms. The process of writing the words will teach the pupil to spell them, will prepare him for written composition, and will so prolong his attention as to enable him to remember what he has learned. The first reading lessons should relate to such common objects as the pupil may find it interesting and useful for him to know, and which the teacher will find no difficulty in presenting to him for his observation.

Reading-books should be selected with reference to such lessons as are above described.

To give the pupil sufficient exercise in reading, a variety of reading matter of the same grade can be introduced from different reading-books, which may be furnished by the committees for the use of the reading classes; or, in place of such books, extracts suitable for primary reading may be selected from newspapers and periodicals.

We have found that reading may be either oral or silent.

The oral reader aims to communicate information to the mind of his hearer, to arouse his emotional nature, and to move his will. The silent reader aims to produce these effects in his own mind. The difference in the two forms of reading, and the difference in the results to be attained by them, require a corresponding difference in the preparation for the performance of the two acts.

A knowledge of the requisites of good oral reading will suggest what preparation for it is necessary. Good oral reading consists in reading so as to be heard, understood, and felt.

To secure the first requisite, the teacher should train his pupil to hold his body and head in good position, to breathe properly, to enunciate the elementary sounds of the words distinctly, and to pronounce the words perfectly. To secure the second end, the reader must be made to understand for himself what he attempts to read, to observe a proper inflection of his voice, and to adapt its tones to the ideas and thoughts to be expressed. The third requisite will be attained if the reader is heard and understood, and gives proper attention to emphasis and accent, and has awakened in his own mind the emotions he would arouse in the minds of others. A knowledge of the three requisites of oral reading will guide the teacher in his training for the exercise, and in criticising its performance.

Concert reading should not be much practised, as it calls the mind of the reader away from the sentiment to be expressed to the formalities involved in a concert exercise, and does nothing towards training for independent reading.

In connection with the reading exercises, vocal training can be given for strengthening the voice and improving its quality. What is called elocutionary, or dramatic reading, should not be attempted in the public schools. The pupil should be early trained to keep in mind, as he reads, the wants of the hearer: this he will do if he endeavors to read so as to be heard and understood and felt.

*Silent Reading.*—It has been shown that silent reading is for the immediate effects it may produce upon the mind of the reader only. Its ultimate end may be the same as its immediate, or it may be done as a preparation for oral reading.

At school, reading is to be both in the oral and silent form. It is to be in the oral form, that the teacher may know whether or not the reading is intelligently done, and that the pupil may acquire skill in communicating ideas to others by oral reading. It is also to be in the silent form as a preparation for oral reading, and as a training exercise for skill in silent reading.

Silent reading, as a preparation for oral, should be conducted as follows: 1st, The pupil should be trained to run his eye rapidly over the whole selection to be read, that he may understand what is the one principal truth it is designed to teach. This understanding must exist, that the reader may read the parts so as to bring emphatically before the mind of the hearer the particular truths to be presented for the establishment of

the principal truth. 2d, The paragraphs, or parts of the selection, are to be examined in the same way for a knowledge of the particular truths and for those important ideas which are expressed by what are called emphatic words.

After this knowledge is obtained, the reader should have practice in reading to imaginary hearers, that he may be prepared to read in a skilful manner when he comes into the class.

This exercise with young pupils is to be conducted under the personal direction of the teacher, who is to teach orally all that which cannot be discovered without such teaching. In the more advanced stage of the pupil's progress, this preparatory work can be done without the aid of the teacher.

Silent reading, for the information of the reader only, should be conducted in the same way, simply omitting all those acts that have sole reference to the communication of knowledge to others.

Great care should be exercised in selecting books or lessons for supplementary reading. Children should not be permitted to read books containing a description of what is not worth knowing, nor those that will corrupt their tastes.

There are supplementary reading-books offered for introduction into the schools, that should be studiously and persistently rejected, because they have a tendency to weaken and corrupt.

**SPELLING.**—Spelling consists in arranging the letters of a word in their right order.

Spelling is to be taught that the learner may be able to make words for himself; not, however, as a direct help in learning to read. The first words for spelling should be taken from the reading lessons. The meaning of these words is supposed to have been taught in connection with the reading lessons, and they are the words the young pupil will wish to use in constructing his first elementary compositions.

The alphabet of the language will generally be learned in connection with the reading, without special instruction; and spelling will be readily learned with the written sentence-making, and the written compositions which the pupil should be put to constructing as soon as he enters the primary school.

The oral form of spelling may be employed in connection with the written; but the written should be employed for the most part, as this is the form to be used in practical life, and



as exclusive practice in the oral method does not prepare one to spell in the written.

As it is better to teach the spelling of words in connection with their use, spelling-books should not be used in the primary schools. Later on in the student's course, as he will desire to master a larger vocabulary of words than he will find in his reading lessons, spelling-books may be introduced; but the meaning of all new words taken from this source should be carefully taught before they are spelled.

These words are to be taught in the same manner as that employed in teaching new words for the reading lessons, and not by presenting verbal definitions.

The pupils should prepare their spelling exercises, after the words to be spelled have been introduced, by writing them until their forms can be remembered.

A large amount of exercise in spelling will be furnished if pupils are put to writing as soon as they enter the primary school, and are required to continue the practice of spelling by writing the sentences they are to read, the compositions they are to construct, and the oral lessons they have been taught.

Spelling should be quite persistently and thoroughly taught during the earlier years of the pupils' course; as during this time their minds are inclined to observe the forms of things, rather than reflect upon the causes of their existence.

ELEMENTARY COMPOSITION.—A written composition is a written expression of the ideas one has invented and combined. If the composition is limited to a description of facts, it may be called elementary. The young pupil is to be prepared for constructing his elementary compositions by oral objective teaching.

By such teaching the writer is led to obtain, through his powers of observation, correct knowledge of whatever he would describe. As he forms his ideas and thoughts, the language by which they are named and described may be taught and associated with them.

The primary pupil must be allowed to limit his first compositions to a description of those familiar objects he can observe, such as plants, minerals, or animals, which the teacher can present to him. These objects will be first known as wholes. The knowledge obtained is expressed by a name. Secondly, by analysis the parts and qualities may be brought before the



mind. This knowledge will be expressed by propositions. The acts and habits of organized things may be observed also, and the pupil prepared for their description.

The compositions thus far provided for are products of the activity of the observing powers, and therefore pertain to real things. Beyond this the pupils in the upper primary schools, or in the younger classes of the intermediate, are able to begin to combine thoughts of parts of different wholes so as to produce thoughts of new wholes unlike any ever observed. The power by which such new wholes are created is called imagination.

Compositions which are the products of the activity of the imagination pertain to ideal things, and are of a higher grade than those which describe simple facts, as they require more maturity of mind and a more complex activity for their construction.

To prepare the pupils for this grade of writing, the teacher may describe a person, place, or event, which the pupils have never observed. As they listen to the description, their imaginations will be active in making mental creations of the objects described. After the descriptions have been given, and the creations made, the pupils may be required to write in their own words an account of what they have been led to imagine. After a sufficient number of such exercises, the pupils may be required to use their active imaginations in inventing their own imagery and in describing with their own language.

In this connection figurative language, the language of the imagination, may be introduced, and the pupils taught how to use it with facility and propriety.

After the teacher has led his class in composition-writing to know what they are to describe, and to construct their descriptions, he is then to criticise for mistakes and for excellencies.

The objects of his criticisms may be the quality and form of the paper on which the compositions are written, the place and form of the title, the margin, the use of capital letters, a few of the more common punctuating marks, the penmanship, the spelling, selection of words, and their grammatical and rhetorical construction.

The authority for the corrections given should not be referred by the pupil to any general principles of grammatical

and rhetorical construction, but simply to the judgment of the teacher, who is himself at this time competent authority.

Our language is to be first learned as a fact: we must acquire the power of using language by using it; after that has been accomplished, and we are able to understand the principle of construction and use, then these may be mastered, and we shall have some well-known rules by which we can measure our own literary productions.

In teaching language, whether oral or written, great care should be taken that the speaker or writer is made conscious of the ideas and thoughts he attempts to express. This can be done in no other way than by a systematic plan of oral objective teaching, in which the objects of knowledge are literally brought before the mind. Great care should also be exercised that the language employed is constructed in accordance with the requisites of good English. The words used should be English words; they should be constructed in accordance with good English construction, and they should be used in an authorized sense. The ability to use good English is to be acquired under the direction of a good example, and good, persistent instruction.

NUMBERS.—The elements of arithmetic are number, the expression, combination, and relation of numbers. *Number* is that quality of objects by which more than one are distinguished from one, and one is distinguished from more than one. *A number* is a collection of units. An expression of numbers is an oral or written name of them, and is made by the use of oral or written words, letters of the alphabet, and characters called figures. *Combination of numbers* is the name of any process which results in the different unions and separations of which numbers are susceptible. *Relation of two numbers* is their difference, or the number of times one contains the other, or is contained by the other.

Some numbers have simple names, others have names formed with simple names. Combination of numbers and names should be taught together. The written expression of the combinations should also proceed with the teaching of the combinations themselves. There should be no divorce of written, from what is called mental, arithmetic.

Every combination of numbers by any of the fundamental operations is made by combining two numbers, and no more, at

a time. This is true, whatever operation may be performed upon the numbers taken. It is important for the teacher to know this truth, that his attention may be directed especially to the combinations which may be made. Of equal importance is it to know the number of combinations, if a limit to the number exists. Now, while the combinations of numbers may be extended indefinitely, there is a limited number of simple combinations, and all others are but applications.

The following table, prepared by Mr. Walton, agent of the Board, contains all the simple or elementary combinations of numbers :—

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
11.	1+1	2+1	3+1	4+1	5+1	6+1	7+1	8+1	9+1
10+1	12.	1+2	2+2	3+2	4+2	5+2	6+2	7+2	8+2
9+2	10+2	13.	1+3	2+3	3+3	4+3	5+3	6+3	7+3
8+3	9+3	10+3	14.	1+4	2+4	3+4	4+4	5+4	6+4
7+4	8+4	9+4	10+4	15.	1+5	2+5	3+5	4+5	5+5
6+5	7+5	8+5	9+5	10+5	16.	1+6	2+6	3+6	4+6
5+6	6+6	7+6	8+6	9+6	10+6	17.	1+7	2+7	3+7
4+7	5+7	6+7	7+7	8+7	9+7	10+7	18.	1+8	2+8
3+8	4+8	5+8	6+8	7+8	8+8	9+8	10+8	19.	1+9
2+9	3+9	4+9	5+9	6+9	7+9	8+9	9+9	10+9	20.
1+10	2+10	3+10	4+10	5+10	6+10	7+10	8+10	9+10	10+10

The combinations are expressed in the table by the figures separated by the sign +, and the results of the several combinations by the figures in full-faced type at the top of the columns. For example, the only simple combinations of five are those expressed beneath the figure 5; and they are 1 with 4, 2 with 3, and the converse 3 with 2, and 4 with 1.

The various applications that can be made of these simple combinations may be embraced under three heads: 1st, When the results are within the successive tens: as 3 with 4, 3 with 14, 3 with 20, &c.; 2d, When the results are the successive tens: as 10 with 20, 10 with 30, &c.; 3d, When the results are in the successive tens: as 5 with 9, 5 with 19, 5 with 29, &c. A knowledge of these combinations formed in this way will furnish to the teacher a plan for his teaching.

With a knowledge of what to teach, the teacher should join a knowledge of the true method of teaching. The method will be suggested by determining what ends are to be secured by the study of numbers. The ends are two: a knowledge of

numbers, and a facility in combining them. The ideas of numbers are to be first awakened by the presence of objects. In studying these objects for their number, the observing powers are called into exercise, and cultivated.

The solution of problems will exercise the memory, imagination, and the reasoning powers. If the student makes his own problems, he will exercise his inventive power.

Much of the time of the primary pupil may be saved by disregarding, at first, the distinct operations in combining numbers, with their definitions and rules, and confining attention to learning the combinations, together with the language by which the combinations may be expressed. The order of the teaching should be such as to lead the pupil, by an orderly progress, from the smallest to the largest combination.

First, then, begin the teaching with two objects. Ask the question, How many? The pupil is to answer the question by presenting two other objects of the same kind. The teacher will then know whether, or not, the pupil perceives the number in the collection. If he presents two, he perceives, and he may now be required to name the number presented. If he does not already know the name, it may be given by the teacher. That the pupil may not be left to associate the number 2 with one kind of objects only, the teacher may ask him to show two hands, two books, two eyes, and two feet. As soon as the pupil is able to recognize the number 2, he should be led to make all the combinations that can be made with 1 and 1: thus, by putting 1 with 1, how many? Taking 1 of the 2 away, how many are left? How many ones in 2?

Having taught the combination 1 with 1, teach next the combination 1 with 2, using all the forms of questions as was done with the combination 1 with 1. Having fixed this combination, take the converse 2 with 1, and treat it in the same way. Then proceed to the combinations of 4, then to those of 5, and so on. The teaching will also include the comparison of each number with each smaller number, also the application of these relations to practical problems. Notice will be taken of the equal numbers, twos, of which 4 is composed. Both the measuring and the fractional form of division must be taught. In the same way will be taught each number from 1 to 20, in the order given in the table.

As soon as the pupils have mastered a few combinations,

they may be taught to make the figures which express the numbers already learned; and, with these figures, practice may be carried on in column additions, which should, from the first, be proved by subtracting. The exercises should be limited for a considerable time to a single order of units.

With the simple combinations for 12 will also be taught the combinations 1 with 11, and 11 with 1. These will be taught as applications of the simple combination 1 with 1. The written expressions will be brought in as an aid; thus, —

$$\begin{array}{r} 1 \\ 1 \\ \hline 2 \end{array} \qquad \begin{array}{r} 1 \\ 11 \\ \hline 12 \end{array} \qquad \begin{array}{r} 11 \\ 1 \\ \hline 12 \end{array}$$

The same method will be employed in teaching the combinations 10 with 20, 10 with 30; also of the combinations that require the pupil to pass from one tens to the succeeding. Thus, to teach the combinations 5 with 17, 5 with 27, &c., refer to the simple combination 5 with 7. The written expressions will be as follows:—

$$\begin{array}{r} 5 \\ 7 \\ \hline 12 \end{array} \qquad \begin{array}{r} 5 \\ 17 \\ \hline 22 \end{array} \qquad \begin{array}{r} 5 \\ 27 \\ \hline 32 \end{array}$$

Teaching the simple combinations includes the teaching of all the multiples, and all the measures of these multiples, so that when the pupil reaches 20 he is prepared to make the multiplication tables. These he will make by counting by twos, by threes, by fours, and so on.

It will not be necessary to proceed in teaching the numbers above 20 with the same particularity as with those below, since the combinations above are but applications of those already taught. Numbers, which are units and multiples of measures of time, of weight, and of capacity, should receive special attention in the elementary schools; so also should those which have several factors, as 24, 30, 36, 48, 60, 72, &c.

Let the pupil have practice in combining addition with the multiples of the several tables, also in the division of numbers which are not multiples, so that he can at once find sums with products and quotients with remainders; then, while learning his multiplication and division tables, he will acquire facility in the practice upon the slate of these fundamental operations.



The lessons indicated thus far apply only to integral numbers. The principles to be applied are, —

1. Numbers must be taught by the aid of sensible objects.

2. The teacher must observe that, —

(a) The combinations to be taught are of pairs of numbers ;

(b) That of these pairs there are one hundred ;

(c) That there are three distinct kinds of applications of these simple combinations ;

(d) That these elementary combinations with the three applications should be thoroughly mastered at the outset ;

(e) That the pupil should learn early to use the pencil and slate to express the arithmetical operations ;

(f) That, as fast as new combinations are presented, the pupil should apply them in solving practical problems ;

(g) And, finally, that with the knowledge of numbers should be acquired a special discipline of the powers of observation, of memory, imagination, invention, and reasoning.

The plan of teaching integral numbers will be observed in teaching fractional and compound numbers. The fractional units *one-half*, *one-fourth*, *one-eighth*, *one-third*, *one-sixth*, &c., will be presented by showing these parts of some sensible integral object. The fractional units and numbers will be expressed and combined, and their relations will be learned and expressed, as were those of the integral units and numbers.

In teaching the compound numbers, the various units of length, surface, and solids, of capacity, weight, of angles, and of time, will be brought into the presence of the pupil, and actually used by him in finding the data for his problems. A limited practice with compound numbers is all that is required.

**DRAWING.** — There is need of elementary instruction in the art of drawing. The education of all classes is now considered deficient without such instruction. The drawing required to be taught in the public schools is *industrial*, not *pictorial*. Our laws provide for the teaching of industrial drawing in all the public schools, with no other limitations than apply to the teaching of reading, writing, and arithmetic. Teachers of these branches are to be qualified to teach drawing.

One object of the study is to train the perceptive faculties and imagination, thus to produce a love of order, and nourish a taste for originality, based on knowledge derived from accurate observation. Educationally, drawing is to be an aid in the



pursuit of other studies. Practically, it is to cultivate taste and skill in industrial pursuits, the element of highest value in the qualification of a workman, both commercially and æsthetically.

In the course of study in drawing published in appendix (D.) to my report for 1878-79, very full directions are given as to the subject and its branches, time and materials to be employed, and as to the details of the work in the different kinds of drawing for the several grades. The student and teacher are referred to that report for full directions for course and methods of teaching.

The following is a digest of the course as there presented:—

The drawing for the first three or four years should be upon slate and blackboard. In the third year pupils commence to draw on paper, and learn to use the lead-pencil and rubber. The pencil is to be held softly in sketching, and the line made at first should be a very faint one. In finishing or lining-in the exercises, the pencil is to be held more upright and more firmly, and a distinct line is to be made. The course in drawing should consist of (1) free-hand, (2) drawing from dictation, (3) drawing from memory, (4) design or inventive drawing.

*Free-hand.*—Pupils are to be taught the point; lines, straight and curved; names to distinguish positions and relations of lines; names of angles, triangles, square, rhombus, and rhomboid. They are also to be taught divisions and sub-divisions of lines into equal parts; the division of figures by lines, and names of dividing lines; and the forms of objects or simple patterns of ornament, all composed of straight lines.

*Dictation.*—Drawing the same or similar exercises as those above named, from oral description; beginning with single lines in defined positions, and continuing with two or more lines combined. Simple figures and their divisions. Ruling lines of given length through given points. Measuring the length of indefinite lines already ruled.

*Memory.*—Drawing from memory examples already worked, forms or objects which are described by name, patterns remembered from copies on the blackboard.

Teach accuracy of work by requiring pupils to measure the length of lines by the inch-measure after a fair effort has been made by free-hand, and test the straightness of lines by the ruler, and the size of regular figures in the same manner and by the same means.

*Design, or Inventive Drawing.*—Drawing of regular forms, with ruler, and of a required size by measure. Dividing them into equal parts. Filling each part with similar shapes, made by straight lines, or any form the pupil may choose. The first exercises to be in drawing the second side of a symmetrical form or object, one side being given on one side of a vertical line, the object being to teach balance and symmetry. Then will follow exercises to repeat a given unit in the remaining divisions of a form, the first being given; the object being to teach repetition.

In criticising, be content to call attention to one deficiency at a time or at a lesson, leaving the others for future remark.

So much as is indicated above may be taught in the first year of the primary school. In the second year, under—

*Free-hand,* Explain curves, simple and compound; teach and draw the circle and its parts and divisions; the ellipse and ovoid; polygons, regular and irregular; combine curves and straight lines to produce geometric figures; teach forms of objects made by simple lines; curve lines on opposite sides of straight line or axis; enlargement (from cards) and reduction (from blackboard) in size; forms of conventional leaves, buds, and flowers about vertical or horizontal lines, or in rosette shape about a centre. Freedom and rapidity of work to be aimed at. Under—

*Dictation,* Polygons of even number of sides, and the circle and its parts of given dimensions, may be drawn from oral instruction. Teach economy of time in working with rule and measure when these are employed for testing. Under—

*Memory,* Exercises already worked under the heads of free-hand, dictation, or design. Vary as much as possible the mode and subjects of the memory exercises. Under—

*Design, or Inventive Drawing,* Geometric forms in which curves are employed, either alone, as in circles, or associated with straight lines, as in quatrefoils or trefoils on the sides of squares or triangles, to be used as the enclosing forms for designs; or the hexagon or octagon without curvilinear additions. For material, use the leaves of plants, or leaves and open flowers, to be repeated around the centre of the enclosing form an even number of times: the leaves to be of the simplest kinds, and the placing of them to be suggested in the form chosen. Natural leaves may be used at certain times of the year.

It is not wise to urge the pupils too much in the direction of making very good lines or perfect shapes by the free-hand alone.

The test of the pupil's knowledge of geometric forms should be his ability to draw them, not to define them in words:

VOCAL MUSIC. — Children should at first be taught to sing, in the same manner as they learn to talk, by *imitation*. That which a child learns of language during the first four years of its life is a preparation for learning to read: the same is true in regard to music. The training in singing, during the first year at least of school-life, should be a preparation for learning to read music. During this period the objects to be attained are, —

1. The awakening of the musical faculties;
2. Cultivation of the voice and ear;
3. Development of the sense of rhythm;
4. Preparation for singing by note.

Pupils should imitate the teacher in position of body, articulation of words, which should be very distinct; also in quality of tone, which should be as melodious as possible. Teach early the scale as a whole, ascending and descending.

During the second year a study of the individual sounds of the scale may be begun. These sounds should be taught as mental objects, the names of which are, 1, 2, 3, 4, 5, 6, 7, 8. The syllables used in singing are, Do, Re, Mi, Fa, Sol, La, Si, Do.

At least five minutes' daily practice on these sounds should be given, until the pupils can sing any one of them promptly at dictation, or recognize and represent upon the staff any one of them when the sound is given.

It should be remembered, that, in teaching music, the object can only be presented to the *ear*; so a part of each lesson should be devoted to a *training* of the *ear*, it being just as susceptible of improvement as the voice. In teaching time, the relative length of sounds should be taught before the notes or the characters which represent them. Beating time should be taught by itself at first, and not in connection with singing. Part-singing should not be attempted until the pupils can sing promptly, and without the *least* hesitation, any and all the sounds of the scale. If part-singing is not successful, the teacher may rest assured that the pupils are not sufficiently familiar with the sounds of the scale to sing them without being influenced by others. Children properly taught should be able to sing at sight common three-part harmonies in any of the nine different keys at twelve years of age.

**SERIES OF LESSONS ON OBJECTS.**—From the primary course of studies will arise a series of lessons on objects.

The objects to be taught and the order of their teaching will both be determined by the plan adopted in presenting the primary studies. Whatever is named and described in the reading lessons is to be taught objectively and in the order in which these lessons describe them.

The words presented to be spelled, if taken from the reading lessons, will already be familiar, in so far as their meaning is concerned. If not taken from this source, they will suggest what objects are to be taught at the time the words chosen for the spelling lessons are presented.

The elementary compositions to be constructed will suggest what must be taught as a preparation for exercises in written composition.

In the exercises in number the different kinds of units to be combined will determine the objective teaching on this topic. So of all the branches to be taught, each will suggest its own matter for objective teaching.

The series above described may be called the first series of lessons on objects to be taught in the primary schools.

The studies of the primary school must be pursued, not only with reference to the primary grade of work, but also with reference to the grade to be taken up in the intermediate school above. In this grade, objects of study are to be analyzed for a knowledge of their qualities or attributes. To prepare the pupil for this analysis, he must have presented to him a systematic course of lessons on qualities and attributes. From this course will arise the second series of lessons on objects.

The series may be constructed as follows:—

<i>Secondary Quality</i>	. . . . .	Color.
		{ Form.
		{ Size.
<i>Primary Qualities</i>	. . . . .	{ Weight.
		{ Number.
		{ Place, &c.

Color is taught with the primary qualities, as it is by means of color, together with form and size, that objects become visible.

Later in the course the secondary primary qualities may be introduced as

Hardness,  
Softness,  
Roughness,  
Smoothness, &c.

Later still the secondary qualities may be taught as

Odor,  
Savor, &c.

*Color* may be presented under the following topics:—

- |                     |           |                                 |
|---------------------|-----------|---------------------------------|
| 1. <i>Primary</i>   | . . . . . | { Red.<br>Yellow.<br>Blue.      |
| 2. <i>Secondary</i> | . . . . . | { Green.<br>Orange.<br>Purple.  |
| 3. <i>Tertiary</i>  | . . . . . | { Citrine.<br>Olive.<br>Russet. |

As preparatory to teaching shades and tints, teach

- |                           |           |                            |
|---------------------------|-----------|----------------------------|
| 4. <i>Standard Colors</i> | . . . . . | { Red.<br>Yellow.<br>Blue. |
| 5.                        |           | { Black.<br>White.         |

Shades are formed by mixing black with standard colors. Tints are formed by mixing white with standards.

6. *Classification and Description of Colors*.—This topic is taught by directing the pupil to arrange in order the shades of a color on one side of the standard of that color, and the tints on the other. In this act the pupil would classify one collection of colors. He might then be taught to describe any one of the shades or tints of the class by naming it, and comparing it with the standard of its kind, or class.

Colored cards, worsteds, or silk thread may be used as materials for this exercise.

7. *Hues*.—Hues are produced by mixing one color with another.

8. *Harmony of Colors*.—Under this topic, teach what is meant by complementary colors: that complementary colors are in har-



mony. A great variety of exercises may be given in arranging colored objects in accordance with the principles of harmony.

The topic, harmony of colors, will furnish the occasion for teaching much useful knowledge, and for cultivating the taste.

9. *Significance of Colors.* — Colors, from their nature and associations, are adapted to express states of the mind. In this adaptation is found their significance.

The importance of knowing what different colors express, is felt by all who wish to conform to the principles of good taste in their use.

*Materials to be used in teaching Color.*

*Water-Colors of Standard* . . . . . { Red.  
Yellow.  
Blue.

Colored balls, cards, worsteds, and charts, prepared for the purpose.

The water-colors can be spread over some white, hard surface, like that of a common plate.

The manner of presenting the topics should be governed by the same principles that control the objective teaching of all natural objects.

Some of the last lessons suggested may be deferred until the pupil reaches the intermediate school.

A systematic course of lessons on color will furnish the mind with useful knowledge and a cultivated taste.

The knowledge may be used in the study of natural objects for the phenomena by which they may be classified, and in guiding to a proper selection and combination of colors when used as symbols or for ornament.

The advantages of a cultivated taste will appear in the propriety of conduct occasioned, in the emotions of pleasure experienced, and in the refinement of spirit produced.

*Form.*

*Materials for First Lessons* . . . . . { Spherical body.  
Cylindrical body.  
Cubical body.

1. Spherical body is round every way.
2. Cylindrical body is round one way, and is flat at the ends.
3. Cubical body is round no way, has flat sides, and its sides are alike.

4. *Surface* . . . . . { Curved.  
Plane.





As the different forms are taught, it would be well to allow the young pupils to reproduce them in clay models.

The process of moulding the forms in clay will lead to a closer and more prolonged observation, will furnish the mind with more accurate knowledge, and aid the memory.

### SIZE.

The pupil must first have exercises in observing and judging of relative size. The knowledge and training obtained by such efforts will prepare the mind for notions of absolute size.

Present some solid bodies, as blocks, balls, or books, of different sizes.

Presenting one of medium size, call for one that is

<i>Relative</i> . . . . .	{ Larger. Smaller. Same size.
<i>Absolute</i> . . . . .	{ Large. Small.

After many exercises of a similar sort with a variety of natural and artificial objects, present surfaces in same way, and lastly lines.

*Measured Size.* — By means of a foot-rule divided into inches, teach inch.

After pupils have observed this measure carefully, require them to mark off a length equal to an inch upon small rods with which they have been provided. Test their judgments, and correct them, by applying to their inches the inch of the rule. After much practice of this kind, give them other exercises in judging of an inch in connection with other objects than rods.

Require marks an inch in length to be made on paper or on the blackboard; marks an inch apart to be drawn.

Let the marks be drawn in all positions, horizontal, vertical, and oblique.

As the appearance of one dimension, as length, taken alone, is modified by the presence of the other dimensions found in combination, as breadth in surfaces, and breadth and thickness in solids, pupils should have exercises in measuring the length of lines, surfaces, and solids.

In the same way as the inch is taught, the foot and the yard may be presented.

The rod and mile are to be measured by means of a chain. The pupils in measuring these lengths will pass over them, and associate ideas of time with those of space. In this way the judgment of the distance measured will be formed from the judgment of the time occupied in passing over the distance.

The measured size of surfaces and solids should be taught in same way as that of simple length.

The pupils should have exercises in measuring heights and depths, and in judging of them.

Exercises on size, if rightly conducted, will train the mind to observe, and to judge accurately of, one of the essential properties of matter.

### WEIGHT.

The special topics under weight will correspond closely to those under size.

The order of teaching is, —

<i>Relative</i> . . . . .	{	1. Heavier.
		2. Lighter.
		3. Same weight.
<i>Absolute</i> . . . . .	{	Heavy.
		Light.
<i>Measured Weight</i> . . . . .	{	1. { 1 oz.
		2. { 2 oz., 6 oz.
		3. { 1 pound.
		4. { 2 ; 5 ; 10 lbs.
<i>Materials</i> . . . . .	{	1. Weights of different amounts.
		2. Scales.
		3. Objects to be weighed.

The mode of teaching weight is the same with that of size and of other qualities.

<i>Measures of Capacity</i> . . . . .	{	1. Relative ideas awakened.
		2. Absolute ideas awakened.
<i>Measured Capacity</i> . . . . .	{	1. Gill.
		2. Pint.
		3. Quart.
		4. Peck.
		5. Bushel.

In connection with these lessons the various tables of weights and measures may be taught.

In the upper classes in the intermediate school, the elements

of the metric system of weights and measures may be introduced.

Passing beyond the topics relating to objects considered as occupying space or contained by it, some lessons on position, or place of objects, may be given.

Such lessons will train the mind to observe, and will supply it with some elementary knowledge, which must be possessed before maps or pictures can be successfully used as illustrations or representations of things as they exist in nature.

As preparatory to the study of geography from any form of illustration, exercises like the following may be given : —

#### PLACE.

Provide a square card, whose sides are one foot in length.

Place the card upon the table with the side farthest from the pupil a little elevated.

Place on the card an object, as a knife or pencil.

Allow the pupils to observe the position of the object; then remove it, and require some one of the class to replace it in its position before removal.

The other members of the class may judge of the accuracy of the act, and be permitted to suggest corrections to be made.

Then more than one object may be placed on the card.

An observation may be made on their positions as before: they can be removed and replaced after the manner before described.

These acts will train the pupils to observe the position of objects with reference to a surface, and the relation of two or more objects on the same surface with reference to each other.

The next step in the exercise has for its purpose the training of the pupil to describe the position of objects on the card. To this end teach what is the top, bottom, left hand, and right hand of the surface. Now the position of the objects may be described to be near the top, bottom, or middle of the card, to be near its right or left hand side.

The terms top, bottom, right and left hand, may be shown to be inadequate as means of description. What at one time would be on one's left hand, would, at another time, be on his right; and the names top and bottom would have no meaning on a level surface.

To obviate this difficulty the points of the compass may be taught, and their names introduced and used.

Next teach the pupils to represent the card by constructing a picture of it upon the blackboard.

What was at first called the top of the card, is now the north side of it; the right is the east, the bottom south, and the left hand west. Seat the class facing the blackboard on the north side of the schoolroom. They have been taught that a surface is the space just on the outside of a body, that the boundary of a surface is a line, and that a line may be represented by a mark. Lead the class to imagine the surface of the card, with its north side uppermost, to be placed against the blackboard in front of them. They may then be taught to represent the boundaries of the surface by corresponding marks.

After this is done, the class will seem to see the surface of the card as they look upon the picture of it on the board. In this result may be seen the advantage of first observing a real surface, and then mentally transferring it to a picture. Now objects placed on the card may be represented by corresponding marks in the picture, and the marks in turn will lead the mind to reproduce thoughts of the real objects themselves. After a time another step may be taken in the representations made by the picture. Not only may the relations of place of objects be expressed, but their relative and absolute size may be expressed also. This is done by constructing the picture or map by a scale, making the size of the represented objects bear a known relation to the size of the objects represented. Exercises on place may be so contrived as to train the mind to observe accurately the relations of objects in space, to represent these relations by outline drawings, and finally to gain a knowledge of the position and size of objects through representations that may be made of them by maps.

The pupils may be led to further practice in observing and representing by making maps of the schoolroom floor, of the school-yard, and of so much of the neighborhood as they can take in at one view.

Perhaps enough has been said to suggest to primary teachers the necessity of using the proper means in teaching elementary knowledge. It is all important that the occasions for this knowledge should be appropriate and adequate.

Luther says, "He who has no knowledge of things will not be helped by a knowledge of words."

Pictures, as original sources of a knowledge of what they represent, are also inadequate.

The mind must be admitted into the presence of all those objects of thought it is required to know, in order that there may be that agreement between the two which is called truth.

#### INTERMEDIATE COURSE.

The knowledge and discipline obtained by passing over the primary studies are supposed to prepare the pupil to enter with facility upon the study of what may be termed an intermediate course. He has some knowledge of individual objects considered as wholes, and has command of sufficient language to enable him to express what he knows. He has also knowledge enough of qualities to enable him to observe them intelligently, as they are found belonging to things. Now the pupil is to be put to analyzing the objects presented to him in his intermediate course for a knowledge of those qualities or attributes which he will use in his future scientific course of study in classifying these objects, and as occasions for a knowledge of the causes of the phenomena observed.

If the teacher would discover a plan for his elementary work in the intermediate school, let him look forward to the scientific course his pupil may wish to pursue in the scientific school. In this course the teacher will learn what elementary knowledge he is to teach, and the order in which it is to be taught. Suppose the pupil comes to his scientific study of material things in this way: Let his first act of classifying consist in mentally arranging these things in two divisions, one of which will include all artificial, the other all natural, things. The first object-lesson, then, the intermediate teacher should give, is that one by which his pupil will be led to observe the marks which distinguish artificial and natural things. Rejecting from his thought artificial things, the scientific student will confine his study to natural objects. These he may separate into two divisions, one of which will be composed of organized, the other of unorganized, things. The elementary teacher should for this reason prepare his pupils for such a future act by teaching them the marks in accordance with which the above division is to be made. This will constitute the second step in the objective elementary work. Rejecting the division



of inorganic things, the scientific student will next divide organic things into plants and animals. This scientific classification will suggest to the elementary teacher his third step in elementary teaching preparatory to the scientific study of any one of the three kingdoms of nature.

If the scientific study of plants is the immediate work to be done, then, rejecting all thoughts of animals, the scientific student will classify plants into two branches, distinguished by the presence or absence of the organs which produce flowers. The elementary teacher would prepare his pupil for this act, by leading him to observe plants for the phenomena that in the future will be used in making the above classification. In the same way the elementary pupil is to be prepared to separate branches into classes, classes into orders, orders into genera, and genera into species. Every science that is to be pursued in the schools must be preceded by a similar elementary course of objective teaching. If this is fully done, the scientific student will have all the elementary knowledge he needs to serve as occasions for his scientific knowledge, and it will lie in his mind in an orderly manner. From what has been said, it is evident that the method pursued in scientific study determines the method of elementary study.

Our present methods of elementary work are not only unphilosophical, but they do not hold any natural relation to the work done in the schools above them. It is generally true that when our pupils come to the scientific study of any branch of learning taught in the schools, they are compelled to jumble their elementary and scientific work together, or else to attempt to master the science without any knowledge of its elements. Instead of this, at the time they enter the scientific schools, they should be provided with an orderly supply of facts pertaining to natural objects, language, and all topics named in the elementary course of studies. This result cannot be produced until the miscellaneous work now done is changed so as to conform to a plan.

The following may be taken as an ideal *course* of studies for the intermediate school. The faculties of the mind that will be especially exercised are the *perceptive powers*, whose activity produces sensations and perceptions; also the *representative powers*, memory and imagination.

The studies of this course will be reading, spelling, elemen-

tary composition, arithmetic, singing, and drawing, which are a continuation of the elementary course; also the additional studies,—the facts of history, elements of geography and geometry, elementary lessons on plants, animals, and minerals, and elementary lessons in chemistry and physics.

*Reading.*—The reading exercises are to be conducted after the same method as that employed in the primary course, except there may be more practice in silent reading. All new words are to be taught as before. Selections from poetry as well as from prose may be read. The figurative language employed in the selections should be interpreted by the pupil before the reading exercise occurs.

*Spelling.*—The spelling exercises should be conducted in the written form, as in the primary classes. The words spelled may still be taken from the reading lessons, or from any of the lessons of the course. All the words used in connection with the exercises of the day may at some time enter into the spelling lessons. The pupil will have a large amount of exercise in spelling in connection with his written compositions.

*Written Compositions.*—Compositions may now be constructed that describe not only natural objects and the creations of the imagination, but historical events and human characters. The pupil may be trained to make out something of a plan for the composition before writing.

1. To choose a subject;
2. To arrange the different topics of description in a natural order;
3. To limit his topics to those that hold a close relation to the main subject;
4. To introduce those topics only, each one of which is distinct from every other topic;
5. To construct the beginning and ending so that the one will properly introduce the subject of the composition, and the other will give it an appropriate dismissal.

The corrections by the teacher may relate to the spelling, choice of words, construction of sentences, use of figurative language, accuracy of ideas and thoughts expressed, use of capitals, and to some of the more common points of punctuation. After the composition has been corrected by the teacher, he should require it to be re-written in accordance with the criticisms that have been made. In connection with the con-

struction of original compositions the pupil will find useful exercise in writing abstracts of his reading lessons.

*Arithmetic.*—The knowledge of numbers gained in the elementary schools prepares for the study of arithmetic in the intermediate schools. When this study is taken up, arithmetic will be defined, also number, a number, and, as the study proceeds, all those terms used to distinguish the divisions, subdivisions, and applications of the subject. The analysis of the operations and the construction of rules for performing the operations will be taught. A systematic review will be made of integral, of fractional, and of compound numbers.

Under the expression of numbers, the principles of the French method of notation will be applied. Little or no time should be spent in writing and reading large numbers, and none whatever in applying the English system of notation. The Roman system will be sufficiently familiar from being used in numbering the reading and other lessons. Under the combination of numbers, the principles involved in the fundamental operations should be understood and explained by the members of the class.

Since great facility and accuracy are desirable in performing the operations of arithmetic, the processes taught should be few and simple. There should be but one process taught, for instance, for the operation of subtraction in examples having several orders of units. Such a plan of analysis of problems should be learned as can be applied throughout the study of arithmetic; sufficient practice should be afforded to insure facility in applying the plan. Pupils should be required to prove their work, and not allowed to depend upon answers given in the books. The above principles apply to fractional and compound, as well as to integral, numbers.

In reduction and in the other operations in compound numbers, it is not necessary to apply all the tables. A sufficient familiarity with the principles underlying the processes will be secured by using a few of the tables. A knowledge of these principles is the chief end to be gained.

Simple problems in the mensuration of surfaces and solids should be readily performed in the intermediate grade of schools. The pupils should have practice in making the measurements and finding the data for their own problems. The metric system of weights and measures should be learned in the schools of this grade.

Percentage is the most important practical application of arithmetic. It should be treated as an application of fractions. This subject is logically divided into percentage without the element of time, and percentage with the element of time. Under the former are taught profit and loss, commission, stocks, brokerage, commercial discount, &c. Under percentage, with the element of time, should be taught simple interest with its applications in bank discount and partial payments; the latter, as also compound interest, should be viewed as an application of simple interest.

Having access, as nearly all the pupils have, to high schools, it would seem that all of the arithmetic beyond these simple applications of percentage, with some practice in mensuration, could be left to the high-school course, or to the efforts of each individual pupil if he has been trained to a good method in the lower schools.

**HISTORY.**—An elementary course in history will have reference to a knowledge of historical events. These events are to be learned as facts, and in the order, as far as possible, in which they will be used in the scientific study of the topic. If the teacher is preparing his pupils for the study of the history of the United States, he will teach them the principal events that occurred during the several periods of our history known as the periods of (1) explorations and discoveries, (2) settlements and colonies, (3) revolutionary period, (4) constitutional period. A knowledge of the events required may be obtained from reading-books written for the young, from biographies and geographies, from elementary histories, and from stories related by the teacher. The *kind* of events learned as facts must be presented first objectively. The time and place of their occurrence may be learned from the sources above mentioned.

Passing over the singing and drawing of the intermediate grade, as good plans for these branches may be found in books published on these subjects, we come next to the topic, —

**GEOGRAPHY.**—A knowledge of the earth's surface is geography. A knowledge of the phenomena relating to the surface is elementary, and of the causes of the phenomena is scientific, geography.

The facts of elementary geography may be divided into two classes: the first consisting of the kinds of geographical objects, as river, mountain, &c.; the second, of individuals of the differ-

ent kinds, as Hudson, Rocky, &c. The elementary course will, therefore, consist of two parts. Part I. leads the pupil to study the kinds of individuals, and Part II. to study the individuals of each kind.

Part I. is divided into two series of lessons: the first is adapted to excite what are called clear ideas; the second, distinct ideas of the different kinds of geographical objects. In the first series objects are presented and names learned; in the second, the objects are analyzed and descriptions given. Arising from Part II. is a third series of lessons, in which the pupil learns the properties and names of individuals.

In Part I., under the first series of lessons, should be taught geographical objects in the neighborhood of the schoolhouse, — first the water, then the land surface. Under the latter should be taught the plain, hill, and valley; under the former should be taught rain, spring, brook, stream, and river. The pupil can describe positions of geographical objects found in his vicinity, using the knowledge of distance and position already gained under lessons on size and place. See p. 119.

The pupil may be taught the topic, map, and be exercised in constructing maps of the school-yard and neighborhood, these objects having been previously studied. These exercises may be continued and extended until the pupil has a pretty good knowledge of geographical objects and facts, and is able to represent what he has observed in a well-constructed map. In time he will learn of new objects from maps constructed by others. The pupil may then pass to the second series of lessons.

The pupil, having passed over the first series of lessons, is prepared to begin the second for distinct ideas. The earth is to be presented as a whole; the topics will be the form, size, and motions of the earth. Under the topic, form of the earth, he can be taught to apply spherical form, which he has already learned in his primary lessons on form. Under *size*, the lessons given will call attention to the number of miles in the earth's circumference and in its diameter. The motions of the earth, rotation and revolution, are to be taught by teaching under the general topics, rotation and revolution, the particular topics, axis, poles, orbit, &c.

The topic, map of the whole earth, will require the pupil to represent upon a plane or spherical surface the lines whose position on the earth he has learned from a globe. The equator,



tropics, polar circles, are all that need to be represented under this topic. After studying the whole, the pupil is to be led to study the parts. These are the bodies of land and water forming the earth's surface. Only general topics are indicated, each implying a number of more particular ones. For example, the topic mountain includes mountain system, or chain, range, ridge, peak, volcano, hill, summit, base, slope, and other topics necessary to a full description of different kinds of mountains. The pupil is now ready for Part II., third series of lessons.

In Part II., under the third series of lessons, should be taught hemispheres, oceans, and continents. The topics, presenting the continent as a whole, will be form, size, and position: those presenting the parts, will be waters and lands outside, then the lands and the waters inside, the continent. The principal cities and some of the chief towns will be taught also the climate. The topics for the study of a political division, are the same as those for a continent, with the following additions: products, occupations, exports, imports, people, government, and religion. The State in which the pupil lives will be studied with more detail than any other State.

The following analysis of the topic, river, will illustrate the teaching of all the general topics. Under rivers as a whole, teach the courses of rivers, and the conditions upon which the size, velocity, and uses depend; under the parts, teach the river-system. Under a river-system, show what a system is, teach the slope upon which it is found, the form, extent, &c. Under the parts of the system, name some of the chief rivers with their uses.

*How to teach the Topics.*—In teaching elementary geography, the pupils should be taken out into the fields where they can observe what they are to know. As they obtain a knowledge of a portion of the earth's surface, and of the objects upon it, through observation, names may be applied. They may next represent on a map of their own construction, or on a moulding-board, what they have observed. These exercises will prepare them to learn something, from maps or globes, of geographical objects which they cannot observe.

When the pupils come to the study of geography proper, they must begin with the surface of the earth taken as a whole. The real earth in itself cannot be presented for a knowledge of



its form, size, &c.; so a globe, which represents these things, must take the place of the earth. The knowledge the pupil will gain from the representative of the earth will be relative, not absolute. Whatever is taught of geography which cannot be observed, must be presented by means of illustrations. A common-school globe furnishes the best form of illustration. That which is learned of a globe should be transferred to the earth: it then becomes a knowledge of the earth, and may be represented in a flat map or upon a moulding-board.

All school geographies develop some system of map-drawing. The pupil should be allowed at first to draw maps upon guide-lines, with his book before him. After a little practice he should be required to reproduce the map without the book. Time should not be spent in trying to make beautiful maps.

Teach the size of a continent by showing the pupil how to measure a representation of it on a globe or map, according to a scale.

When the study of the continent as a whole has been completed, the teacher can assign as a lesson the waters outside the coast, and refer the pupils to their geographies where the names of the bodies of water may be found. Text-books in geography should be used as reference-books, but lessons should not be assigned from them to be committed to memory. At recitation the pupil should represent the outline of the continent, point to the representation of the object he is describing, and then give it its name. Then, turning from his map, he should point in the direction where the object is to be found upon the earth's surface. In reciting upon mountains, rivers, or on any object within the coast-line, the pupil should represent as he describes.

Perhaps enough has been said to enable a practical teacher to make out a complete plan for presenting geography. The amount of detail work to be done will depend on the amount of time allotted to the subject.

As an aid to the study of geography, and for the purpose of obtaining elementary knowledge to be used in the study of botany and mineralogy, elementary lessons on plants and minerals may be given in the intermediate course.

*Plants.*—Outline of elementary work. 1. Parts of the plant. 2. History of plant-life. 3. Differences in the parts of plants.

4. Habits of plants. 5. Uses of particular plants. 6. Special subjects, — forest trees, grains, woods.

*Outline of Lessons to Teach History of Plant Life.*

1. Embryo. 2. Growth. 3. Buds. 4. Flowers. 5. Fruit. 6. Seed.

The teacher may furnish the class with beans previously soaked for a few hours, and direct them in finding the embryo. The germination and early growth may be observed in plants raised in a box in the schoolroom. The later growth may be studied in plants from the garden.

*Minerals.* — Outline of elementary work. 1. Lessons to show what a mineral is. 2. Differences in minerals. (*a*) In natural form, crystal; (*b*) structure, cleavage; (*c*) hardness; (*d*) lustre; (*e*) transparency; (*f*) color. 3. Application of the knowledge in distinguishing minerals from one another.

*Outline of Lessons to Teach Difference in Lustre.*

1. Degree of lustre. For illustrations compare galenite, feldspar, and jasper. 2. Kind of lustre. Compare galenite, quartz, and selenite. Each student is furnished with a small piece of each of the minerals, and also with a piece of glass and a pearl button. He compares the lustre of each mineral with the lustre of the glass, the button, and a bright knife-blade, and learns which of these it most resembles.

*Outline of Lesson for Qualities, &c., of Quartz.*

1. QUALITIES. — Form, hexagonal prism terminated by hexagonal pyramids, no cleavage, not scratched by knife, scratches glass easily, vitreous lustre, transparent to opaque, colorless and white most common.

2. VARIETIES. — Rose quartz (pink); smoky quartz (dark gray); amethyst (purple).

3. USES. — (*a*) Of what use? In rock-making, in grindstones, in sandpaper, in cutting glass, in jewelry. (*b*) Why useful? Because hard, no cleavage, for first three uses; and of color, lustre, and transparency, for last.

Each student is furnished with a specimen of massive quartz, and one or more crystals are distributed. These specimens are tested for the six qualities studied as differences. Such varie-

ties are taught as can be shown to the class. The uses are shown by specimens of rock containing quartz, specimens of grindstones, of sandpaper, of cut-glass, and of jewelry; and the students are led to determine which of the qualities they have found make the mineral useful for the various purposes.

These topics are sufficient to guide the teacher in preparing his plan for presenting elementary lessons on plants and minerals. Topics for an elementary study of animals may be made out in the same way.

#### SCIENTIFIC COURSE.

Having gone faithfully over a course of elementary instruction, the student is prepared to pass from the study of facts connected with individual things, to a consideration of those general truths which apply to classes, and which are called scientific truths. A scientific course of study differs radically from an elementary course; and, that the difference may be clearly seen, it will be well to show more fully than has been shown before, 1st, The characteristics of elementary and of scientific knowledge; 2d, In what does the mental activity which is necessary to acquire the one differ from that which is necessary to acquire the other?

If an object, as a mineral, is presented, the mind perceives it to be one thing, made of its qualities combined into one whole. The mind can then withdraw attention from the object as a unit, and consider one of its qualities, as, for example, its form, to the exclusion of thoughts of the other qualities. In the same way all the qualities may be considered, each in its turn. That process which consists in mentally separating the qualities or attributes of a complex object of thought from one another, and considering each apart from the others, is analysis. By analysis the form, size, color, hardness, &c., of the mineral, may be brought before the mind as special objects of observation. In the same way other minerals of the same kind may be analyzed.

After a certain number have been thus examined, the mind of the student will turn back upon the knowledge it has gained, and by means of it compare the individual minerals with one another. Through the comparison it may be found that the minerals observed differ from one another in form, size, color, and weight, but that they resemble one another in lustre, hard-

ness, fusibility, solubility, and form of crystals. A few individual minerals having been analyzed and some qualities found common to them all, the mind is next inclined to consider that the same qualities are common to all other minerals of the same kind; that is, the mind is disposed to make general to all objects of a kind the qualities found by observation common to a few. This last act is called generalization. By generalization the mind enlarges its knowledge beyond the products of simple observation.

The mind is now able to mentally collect all the minerals having the common qualities named before into one group, by thinking the common qualities of them, and thus to form a class [of minerals] that may be denoted by a general name, as *Quartz*. The process of collecting all objects of a kind into one group by thinking the same qualities of them all, is combination. Groups thus formed are classes. Classes, then, are formed by the three acts: analysis, generalization, and combination; and a knowledge of classes is scientific knowledge.

We are now prepared to compare, 1st, Elementary with scientific knowledge; 2d, The mental processes involved in obtaining the one, with those involved in obtaining the other. Elementary knowledge is of the qualities or attributes of individual things. It is, therefore, particular and concrete knowledge. Scientific knowledge is of common qualities or attributes considered apart from any particular thing to which they may belong. It is, therefore, general and abstract knowledge. As elementary knowledge is particular and concrete, it may be expressed by individual names, and by particular propositions explaining the names. As scientific knowledge is general and abstract, it may be expressed by definitions, and by general propositions explaining the definitions.

The distinction between elementary and scientific knowledge, indicated by the difference in their forms of expression, may be illustrated as follows:—

A is a plant. In this case A is the name of an individual plant, with its parts and qualities. The name A may be explained by the use of particular propositions describing the parts and qualities of the individual plant A, as A has long, slender roots, a short, thick stem, and dark-green leaves. From these illustrations it may be seen that elementary knowledge is expressed by individual names and by particular propositions.

The illustrations also indicate the true province of elementary teaching,—that it is limited to facts connected with individual objects.

Grammar is a science, and is sometimes defined to be that knowledge which has for its object the right construction of propositions. This is the true form of the definition of grammar or of any science, as it refers grammar—one division of knowledge—to its genus or kind, knowledge, and expresses a specific difference between *it* and all other divisions of knowledge, by the clause, which consists in “the right construction of propositions.” The definition having been given, it may be explained by such general propositions as the following:—

By propositions are meant, expressions consisting of subject, copula, and attribute. The right construction of propositions is the result of speaking or writing their different parts with their right forms and right arrangement. From these illustrations it may be known that scientific knowledge is expressed by definitions and general propositions.

If we now turn our attention to the mental processes involved in producing elementary and scientific knowledge, we shall find,—

1st, That elementary knowledge is produced by observing individual objects of thought, first, as wholes; and, second, as composed of qualities or attributes. The observations may be followed by comparisons of the qualities of one object with those of another for resemblances and differences. Through the activity of memory and imagination the knowledge thus obtained may be preserved for future use in scientific study, or for new combinations, such as are made by the activity of the imagination when it produces new wholes unlike those ever observed. In all these cases the mental activity has for its object facts pertaining to the phenomena of individual things.

2d, We shall find that scientific is obtained from elementary knowledge by generalization and combination,—the two acts peculiar to classification. The mind is now prepared for reasoning, which consists in analyzing general propositions for the particular propositions contained in them, or in referring individuals to the classes to which they may belong. The acquisition of elementary knowledge calls into exercise the powers of observation, the powers which produce sensations and perceptions, also the representative powers, memory and



imagination ; while scientific knowledge is the product of the elaborative or reflective powers,—the powers that generalize and reason.

From what has been said of elementary and scientific knowledge, and of the various activities of the mind in its efforts to obtain the two kinds of knowledge, the teacher may learn what must be the materials and methods of his teaching. The materials of elementary teaching are individual objects of thought, from a study of which a knowledge of facts may be obtained. The materials of scientific teaching are the different kinds of elementary knowledge which are to furnish the mind with occasions for scientific knowledge.

The teaching of language is supposed to keep pace always with the teaching of that which is to be expressed by language. We have already found that elementary language consists of individual names and descriptive particular propositions illustrating the significance of the names ; that scientific language consists of definitions, and general propositions illustrating the definitions.

The method of teaching elementary knowledge, as already illustrated, is to present the objects to be studied so that the mind will obtain a knowledge of such facts as a scientific knowledge of those objects will require, and to obtain the knowledge by its own analysis of the objects themselves. The method of scientific teaching is to lead the mind of the student to reproduce its elementary knowledge, to classify it, to refer the phenomena observed to their causes, and to find the laws in accordance with which the phenomena exist. In all cases that which is to be studied must be presented to the mind of the learner, and in all cases he must be allowed to obtain his knowledge by an exertion of his own active power.

The following topics belong to a scientific course of studies : As the elementary student passes from his elementary topics, the study of number passes to the study of arithmetic and algebra ; and of form, to geometry. The observation of those changes in bodies that do not affect their identity, changes to the study of physics and astronomy ; the study of those changes that do affect the identity of bodies, becomes the study of chemistry. The study of individual animals, plants, minerals, and of facts relating to the earth, passes to the study of zoölogy, botany, mineralogy, geology, and geography. Drawing



may be conducted according to a plan prepared by the State director of drawing. (See report 1879.) His previous course in language has prepared the pupil for grammar, rhetoric, English literature, and written composition, constructed according to a method. Trigonometry and surveying may now be taken for the knowledge that will aid in the study of physics and astronomy, and to prepare for the occupations of life. From the study of language the mind is naturally led back to the thoughts expressed by language, and logic may be introduced. From the laws of thought the attention will be turned to the mind that thinks, under the subject psychology. History and civil polity will present the topics required for the study of man as a social being and as a member of the State. Moral philosophy will direct attention to the relations man holds to his Creator.

Many topics in the above course of studies include other topics which are usually written as independent topics: as physiology, book-keeping, penmanship, &c. All these may be introduced in their appropriate places, at the option of the teacher.

The student, having passed satisfactorily over these courses of studies, may enter with facility upon a course of professional training, as a preparation for successful work in any of the occupations of life, or in any of the professions. Whatever may be his relations to public or private affairs, if he has passed faithfully over the above prescribed course of studies, under good teachers, the State will have reason to expect he will become an intelligent, virtuous, and loyal citizen.

#### METHOD OF TEACHING SCIENTIFIC TOPICS.

A method of teaching branches of science may be illustrated by using grammar and history as examples. The principles in accordance with which the teaching must be conducted have already been explained. In the explanation it was shown that a science, like an individual object, in order to be studied, must be presented. This is done by a definition. The parts are then to be taken up after the same manner and in a logical order.

GRAMMAR. — Illustrate and define grammar.

*Illustrative Example.* — The ball is round.

*Teacher.* — For what is the word “ball” used?

*Pupil.* — To name that of which something is affirmed.

*T.* — Call such a word in an expression the subject. Define subject. The pupil will define by repeating what he has already said.

*P.* — The subject of an expression is the part of it used to name that of which something is affirmed.

*T.* — For what is the word "round" used?

*P.* — To express some quality of that named by the subject.

*T.* — Call such a word the attribute of an expression. A full definition is required as before. In the same way copula is taught. The definitions of subject, copula, and attribute, may be repeated by the pupil, and he may be led to see of what the expression is composed. The teacher, then, may say that an expression composed of these three parts is a proposition. The pupil is now prepared for a full definition of a grammatical proposition. After a similar manner should be taught right construction of propositions, and right arrangement of the parts of a proposition. The pupil will now be prepared with a full knowledge of the definitions of *proposition*, *right construction*, and *right arrangement of propositions*: he knew before the meaning of object of knowledge, and knowledge. The definition of grammar can now be intelligently given, by combining, with a synthetic act, what has been learned through analysis, and as follows: —

Grammar is that knowledge which has for its object the right arrangement and construction of propositions.

In the same way teach the parts of speech, their forms, and the principles that control their construction into propositions. All these things may be taught by presenting to the pupil appropriate propositions for analysis and definition. In this way the teacher may lead his pupil to discover for himself all the grammatical truth he will wish to know; and to discover it by such processes as will train him in grammatical analysis, and furnish him with a true method of study.

**HISTORY.** — History is that knowledge which has for its object the causes and effects of those events that have had a bearing on the progress of the human race.

The pupil prepares himself to take up the scientific study of history, by gaining a knowledge of events as facts, without regard to the causes that produced them, or to the results by which they were followed. Suppose the pupil to be thus

prepared for history, the following are proposed as proper topics for a course in

### HISTORY OF THE UNITED STATES.

I. History of United States defined. II. Teach the different periods into which the events of United States history may be divided: 1. Period of discoveries and explorations. 2. Settlements and colonies. 3. Revolutionary period. 4. Constitutional period.

Under one period—discoveries and explorations—first teach the subject as a whole by presenting the kind of events that constitute the period; their cause, time, place, and result. Second, teach the particular occurrences of which the events of discovery and exploration are made up. One event, as that of Burgoyne's invasion, may be taught by first teaching the event, cause, time, place, and result; second, the occurrences that took place during the invasion.

Referring to the topics given, it will be observed that they are of two kinds. Some require definitions; others, simple descriptions. Definitions are to be taught after the manner illustrated under the topic grammar, and descriptions are to be given so as to bring particular events before the mind in the order of their occurrence. The topics presenting the history of any age or country should be so arranged as to bring the events of that history before the mind in the order of their occurrence, whether we begin with the present or with most ancient times; that is, the periods of history should be studied in a chronological order.

In teaching a scientific course of history, the teacher, in assigning the lesson for study, is to present the topics in their proper order, and to refer the class to the best sources of information. The recitation is to be given by topics, and without questions from the teacher, until the pupil reciting has expressed all he knows of the topic assigned to him. After that some questions may be put to call attention to omissions or to new truths, or to correct any mistakes that may have been made.

The pupils should be encouraged to construct maps representing the places where the historical events they are studying occurred. These maps may be drawn and used at the time of recitation. The student of history should have a good course of reading marked out for him, and he should not be allowed to

take up his subjects too much in detail. Reviews should be frequent, and by subjects. In the review the pupil should be led to group the events. He should group together those events which occurred at the same place, those which occurred at the same time, also those having the same cause or result. The facts should be so well learned that the pupil could name them readily in their chronological order, but he should never be required to commit to memory chronological tables.

#### BOTANY.—OUTLINE OF SCIENTIFIC WORK.

I. Lessons for botanical terms. II. For principles of classification. III. For characteristic marks of families. IV. For mode of determining genus and specie. V. Lessons for plant structure. VI. For plant nutrition and growth. VII. For plant morphology.

#### MINERALOGY. — OUTLINE OF SCIENTIFIC WORK.

I. Lessons on crystals. II. Scales of hardness. III. Specific gravity. IV. Solubility. V. Fusibility. VI. Blow-pipe effects. VII. Double refraction and polarization. VIII. Magnetic properties. IX. Use of determinative tables. X. Classification of minerals.

Enough has been said to guide the scientific teacher in preparing other branches of study.

I have been greatly aided in constructing the above course of studies by Mr. Walton, agent of the Board; Mr. Martin of the normal school, Bridgewater; Mr. Osburn of the normal school at Salem; Mr. Diller of Cambridge and Mr. Holt of Boston.

#### AGENTS OF THE BOARD.

The agents of the Board, Messrs. Walton and Hubbard, have been constantly engaged during the past year in visiting towns for consultation with school committees and teachers, in attending school-committee conventions, and in organizing and conducting teachers' institutes. For the particulars of their work reference may be made to their reports to the Board, and found in the Appendix. These gentlemen, having had a long and successful experience in the work they are called to perform, are able to render most valuable service to the schools which they directly or indirectly affect by their counsels and their teaching. They aid school committees and teachers by sug-

gesting improved methods in the administration of school affairs. They awaken the interest of the people in their schools by showing the importance of them, and in directing attention to the duty the statutes have imposed on the towns to give the schools a cordial support. The agents are everywhere well received. The calls for their services are now so many that their time is almost wholly consumed in answering the invitations they receive. I wish to bear testimony to the faithfulness and efficiency with which their service is always rendered. It would be well to ask the Legislature to increase the appropriation for this service, so that at least two additional agents may be appointed for the coming year.

#### NORMAL SCHOOLS.

The normal schools are doing a most important work for the public schools of the Commonwealth. In former times the work of the public-school teacher was considered to be so simple in its character and so easily performed, that almost any one could teach school. Now teaching is known to be a science and an art, and those who would teach in a satisfactory manner must prepare themselves by a successful experience or by a thorough professional training. In school matters we cannot well endure the mistakes and failures that must be made before experience is able to guide to right methods. It seems, therefore, in accordance with the highest economy to multiply trained teachers as rapidly as possible, and to encourage their employment. It is in this way that our system of instruction is to be improved, and the best results are to be secured. The normal schools are gradually raising their standards for the admission of pupils and for their graduation.

The following is an account of attendance for the last year : —

	NO. OF STUDENTS.	NO. OF GRADUATES.
Salem . . . . .	275	54
Bridgewater . . . . .	199	55
Worcester . . . . .	171	20
Framingham . . . . .	81	22
Westfield . . . . .	115	27

Number of normal teachers employed in the Commonwealth, 2,228.

Most of the normal schools have schools of observation, or practice schools, which furnish the opportunity for normal



pupils to obtain a practical knowledge of the best methods of teaching. As skill is acquired by experience, it seems desirable to encourage the establishment of practice schools in connection with all our normal institutions.

From statistics obtained it appears that the graduates of the normal schools find ready and constant employment, and that they meet with gratifying success.

#### ATTENDANCE UPON THE SCHOOLS.

Among the changes necessary to be made I have named better constructed schoolhouses, and a more judicious selection of teachers; but neither of these will subserve their purpose, if the children do not find their way into the former, nor come under the influence of the latter. I name, therefore, another change, a better attendance upon school. The ratio of average attendance to the whole number of persons between the ages of five and fifteen years is about seventy per cent, leaving a non-attendance of about thirty per cent. A part of this non-attendance arises from the absence of pupils on account of sickness, of domestic affliction, or of other satisfactory causes; a larger part from the readiness with which the indulgent parent grants permission to the child to be absent from school for causes trivial and insufficient. But schoolhouses well constructed, well furnished, made attractive by their appointments and their surroundings, natural methods of teaching, making learning a delight, the efforts of earnest, faithful teachers, sustained by reasonable rules and regulations of the school committees and by a sympathetic community, will do much toward reducing the number of these unnecessary absences.

A still larger part of this non-attendance arises from the absence of those who, though of school age, do not appear in the schools at all, or only for so long a time as the compulsory laws make necessary. Indifference or lack of authority on the part of the parent allows many a child to attend school, or not, as he pleases; while the poverty or the cupidity of the parent seems to demand the labor of his children for the well-being of the family. To meet the cases of such and to secure a better attendance, laws, known as compulsory laws, are found upon our statute-books. Knowing how great the temptation is, especially to those from other countries, to place their children in the mills where their earnings form no inconsiderable part of the



support of the family, the Legislature passed a law forbidding children under ten years of age to be so employed, and making the parent permitting such employment liable to a fine. The law reads (I quote from the statutes as revised and condensed by the State Commission for that purpose):—

“No child under the age of ten years shall be employed in any manufacturing, mechanical, or mercantile establishment in this Commonwealth; and any parent or guardian who permits such employment, shall, for such offence, forfeit a sum of not less than twenty, nor more than fifty, dollars, for the use of the public schools of the city or town.”

This law does not compel the child to attend school, but forbids his employment, and takes from the parent the temptation to put the child to work, and adds force to the prohibition by the imposition of a fine.

Another section of the same law goes farther. It forbids any child under fourteen years of age to be employed in the establishments named above while the schools are in session, unless he has attended school at least twenty weeks in the year next preceding such employment.

This section reads, —

“No child under the age of fourteen years shall be so employed, except during the vacations of the public schools, unless during the year next preceding such employment he has, for at least twenty weeks, attended some public or private day school, under teachers approved by the school committee of the place where such school is kept, which time may be divided, so far as the arrangements of school terms will allow, into two terms, each of ten consecutive weeks; nor shall such employment continue, unless such child shall, in each and every year, attend school as herein provided; and no child shall be so employed who does not present a certificate made by or under the direction of said school committee of his compliance with the requirements of this section: *provided*, that a regular attendance during the continuance of such employment in any school known as a half-time day school, or an attendance for twenty weeks in any public or private day school, as above stated, may be accepted by said school committee as a substitute for the attendance herein required.”

Another section goes still farther. It makes it unlawful for any child under fourteen years of age, who cannot read and write, to be employed at all in such establishments while the schools are in session.

“No child under fourteen years of age shall be employed in any establishment named in sect. 1, while the public schools in the city or town where such child lives are in session, unless such child can read and write. Every owner, superintendent, or overseer in any such establishment, who employs,

or permits to be employed, any child in violation of this section, and every parent or guardian who permits such employment, shall, for every such offence, forfeit a sum of not less than twenty, nor more than fifty, dollars, for the use of the public schools of such city or town."

In other sections, as in the one just quoted, owners, superintendents, and overseers who employ children in violation of these laws, and parents and guardians who permit such employment, are subject to the same penalties. These laws forbid the employment of children in any manufacturing, mechanical, or mercantile establishments, except under certain circumstances and upon certain conditions; but they do not compel attendance upon school. They take the child out of the mill, they do not put him into the school. The parent may, from unwillingness to meet the expense of books and of suitable clothing, from indifference to the whole subject of education, or from mere wilfulness because he is deprived of the proceeds of the child's labor, refuse to send him to school; and, so far as these laws are concerned, he does not offend. But at this point another law takes up the matter, and that, while not forbidding employment, does require attendance upon school.

"Every person having under his control a child between the ages of eight and fourteen years, shall annually cause such child to attend, for at least twenty weeks, some public day school in the city or town in which he resides, which time shall be divided, so far as the arrangements of the school terms will allow, into two terms each of ten consecutive weeks; and for every neglect of such duty the party offending shall forfeit to the use of the public schools of the city or town a sum not exceeding twenty dollars; but if the party so neglecting was not able, by reason of poverty, to send such child to school, or if such child has attended, for a like period of time, a private day school approved by the school committee of such city or town, or is regularly attending a public or private day school known as a half-time school, also approved by them, or if such child has been otherwise furnished, for a like period of time, with the means of education, or has already acquired the branches of learning taught in the public schools, or if his physical or mental condition is such as to render such attendance inexpedient or impracticable, such penalty shall not be incurred: *provided*, that no objection shall be made by the school committee on account of the religious teaching therein."

While this law provides that every child between the ages of eight and fourteen years shall be sent to school at least twenty weeks of each year under a forfeit of a sum not exceeding twenty dollars, there are several exceptions under which the penalty shall not be incurred. If the physical or mental condi-

tion of the child is such as to render his attendance impracticable,—that is, if he is paralytic or idiotic, or if he has already acquired a knowledge of the branches taught in the public schools, so that he does not require the instruction there provided; or if he has been otherwise furnished for a like period of time with the means of education; or if he is attending a half-time school or a private school approved by the school committee; or if the parent is too poor to send his child to school,—then the penalty shall not be incurred. Hence, it appears that a parent who, for good and sufficient reasons, does not send his child to the public schools, is released from the penalty. But is poverty a good and sufficient reason? Can a man who is rich enough to have a child be too poor to send him to a free school at his door? Is any parent so poor that he cannot allow his child to attend school two-fifths of each year for the six years of the child's life between the ages of eight and fourteen years? And if poverty frees the parent from the penalty, does it, therefore, excuse the child from school? Does it accord with the common sense of the common people, with our idea of fair dealing with every child among us, with the genius and spirit of our institutions, with the care the State is bound to exercise over each child of the State, with the State's recognized need of an educated citizenship,—does it accord with all or with any of these that the poverty of the parent shall deprive the child of, at least, this pittance of learning? Must the child suffer thus, and can nothing be done for him?

By other sections under the caption "Truant Children and Absentees from School," the towns are required to provide for truants, and for those not attending school, growing up in ignorance, &c.

"Each city and town shall make all needful provisions and arrangements concerning habitual truants, and children between the ages of seven and fifteen years, who may be found wandering about in the streets or public places therein, having no lawful occupation or business, not attending school, and growing up in ignorance; and shall make such by-laws as shall be most conducive to the welfare of such children, and to the good order of such city or town; and shall provide suitable places for the confinement, discipline, and instruction of such children: *provided*, that said by-laws shall be approved by the superior court, or a justice thereof, or by the judge of the probate court of the county."

By another section of the same chapter, school committees are required to appoint truant officers, whose duty it is, under the direction of the school committee, to investigate all cases

arising under the section quoted, make complaint, and carry into execution the judgment thereon.

By another section, any minor convicted under the by-laws referred to above may be committed, for a time not exceeding two years, to the place provided, — a place for the confinement, discipline, and instruction; and justices of police or district courts, trial justices, trial justices of juvenile offenders, and judges of probate courts have jurisdiction.

Hence it appears, that while the poverty of the parent may be such as to release him from the fine for not sending his child to school, and while the child cannot, by the provisions of that act, be put into school, by the act relative to truant children and absentees from school, he can be committed to a school known commonly as a truant school; and in this way the child's right to an education, and the State's right to have him educated, will not be destroyed by the poverty or the wilfulness of the parent.

But while each city and town is required to make all needful provisions for these classes of children, make by-laws conducive to their welfare, and provide suitable places for their confinement, and while no apportionment of the annual income of the Massachusetts School Fund shall be made to any city or town which has not complied with the laws of the Commonwealth relating to truancy, many towns have failed to make by-laws and secure their approval, and still more have not provided themselves with the suitable places required. Such towns have now no place where they can send their truant children and their absentees from school. Some of the cities and larger towns have had truant schools for many years; and the statutes allowed any city or town, with the assent of the State Board of Health, Lunacy, and Charity, to assign the State Primary School at Monson as the place of confinement.

For a time this assent was obtained by a limited number of towns; but later the assent was withdrawn, permission can no longer be secured, and there is doubt what can be done in the emergency.

An act was passed by the Legislature of 1873, which reads:—

“When three or more cities or towns in any county shall so require, the county commissioners shall establish, at the expense of the county, at convenient places therein, other than the jail or house of correction, truant schools for the confinement, discipline, and instruction of minor children

convicted under the provisions of sections eleven and thirteen: and shall make suitable provisions for the government and control of said schools, and for the appointment of proper teachers and officers thereof."

The statute does not limit the county commissioners to one school, rendering a large one necessary in the larger counties, and making the life in it correspond to institution life, but they may, if they see fit, establish several smaller ones in which the home and the family element shall be prominent, and be made available for reformation. Although this law was passed seven years ago, no county, with the single exception of Hampden, has availed itself of its provisions, and secured a county truant school. For several years prior to 1879, Springfield had had a truant school; but in that year it united with Holyoke and Chicopee in a petition to the county commissioners to establish a county truant school. Eleven acres of land were purchased in Springfield a mile or two distant from the business centre, and in the autumn of 1879 and the winter following, buildings were erected, and were ready for occupancy in June, 1880. Very few boys were sent there at first; but after the long vacation in the public schools sentences were more frequent, and at this writing (Nov. 15) there have been sixteen commitments. The buildings will accommodate about thirty pupils, and at slight additional expense can be made ample for twenty or twenty-five more. The cost to the county of land and buildings does not exceed ten thousand dollars.

The officers are a superintendent, matron, and teacher, a farmer and his wife,—the wife acting as cook.

The boys are in the schoolroom five hours a day, have an ample playground, and render assistance in the house and upon the farm. The sentences are, for the most part, for one year; but it is thought that, as the good influences of the school are seen and appreciated, the sentences will be for a longer period.

#### DEFECTS IN OUR SYSTEM OF SCHOOLS AND OF INSTRUCTION.

By direction of the Board the following questions were sent out into the different parts of the State, directed to persons interested in our public schools:—

1. What are the defects in our system of schools and system of instruction?
2. How can the defects be removed?

Some answers were returned, the substance of which may be found in the Appendix.



It appears from these answers that the most earnest and intelligent friends of popular education in the Commonwealth agree in the opinion that grave defects exist in our systems of elementary and scientific instruction. It appears, also, that they differ among themselves in their judgments of what the defects are, and of the manner in which they may be removed. When the philosophy and the history of education are generally understood, when the facts pertaining to the work actually done in our schools are generally known, then educators will be more likely to agree concerning the reforms we need, and the methods in accordance with which they are to be made. We have arrived at that period in the history of our educational institutions when we should be able to refer all our educational methods to those general principles, which, being collected and systematically arranged, constitute the true science of education.

J. W. DICKINSON.

BOSTON, 1881.





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# FINANCIAL STATEMENT.

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## FINANCIAL STATEMENT OF THE BOARD OF EDUCATION.

Dr.	APPROPRIATION FOR SUPPORT OF NORMAL SCHOOLS.			Cr.
1880.	1880.		1880.	
Bridgewater Normal School.			Appropriation, chap. 8, Acts of 1880 . . . . .	\$15,000 00
Salary of principal . . . . .	\$2,600 00		Appropriation, chap. 210, Acts of 1880 . . . . .	42,500 00
Salaries of assistants . . . . .	9,394 13			\$57,500 00
Care of buildings, repairs, &c. . . . .	232 76			
Fuel . . . . .	306 00			
Books and apparatus . . . . .	118 36			
School of observation . . . . .	98 75			
		\$12,750 00		
Framingham Normal School.				
Salary of principal . . . . .	\$2,100 00			
Salaries of assistants . . . . .	6,307 76			
Care of buildings, repairs, &c. . . . .	1,061 72			
Fuel . . . . .	356 47			
Printing . . . . .	52 63			
Advertising . . . . .	116 66			
Books and stationery . . . . .	100 15			
Chemicals and apparatus . . . . .	22 21			
Sundries . . . . .	174 37			
		10,291 97		
Salem Normal School.				
Salary of principal . . . . .	\$3,000 00			
Salaries of assistants . . . . .	9,225 00			
Care of buildings, repairs, &c. . . . .	415 17			
Fuel . . . . .	374 00			
Ink-wells . . . . .	43 88			
Water tax . . . . .	55 00			
		13,113 05		

Westfield Normal School.					
Salary of principal . . .	\$2,600 00				
Salaries of assistants . . .	5,717 47				
Care of buildings, repairs, &c. .	968 62				
Fuel . . . . .	337 79				
Books and stationery . . .	34 70				
Gas and water bills . . .	23 47				
Advertising . . . . .	32 40				
Printing . . . . .	80 79				
Apparatus . . . . .	59 46				
School of observation . . .	401 00				
Sundries . . . . .	47 22				
		10,302 92			
Worcester Normal School.					
Salary of principal . . .	\$2,600 00				
Salaries of assistants . . .	5,784 72				
Care of buildings, repairs, &c. .	662 36				
Fuel . . . . .	603 07				
Books and stationery . . .	320 38				
Printing . . . . .	184 24				
Advertising . . . . .	63 75				
Ice and water bills . . .	21 22				
Apparatus . . . . .	6 00				
Sundries . . . . .	50 97				
		10,296 71			
			\$56,754 65		
Balance of appropriation unex-					
pended Jan. 1, 1881 . . .	. . .		745 35		
			\$57,500 00		
					\$57,500 00

## FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

DR.	APPROPRIATION FOR NORMAL ART SCHOOL.				CR.			
	1880.		1880.	Appropriation . . . . .		1880.	Appropriation . . . . .	
	Salary of principal . . . . .	\$2,250 00						\$16,925 00
	Salaries of assistants . . . . .	7,599 25						
	Rent, School-street premises . . . . .	3,000 00						
	Rent, Deacon House . . . . .	1,750 00						
	Janitor . . . . .	372 66						
	Taxes, School-street premises . . . . .	893 76						
	Fuel . . . . .	93 50						
	Water tax . . . . .	8 45						
	Gas . . . . .	91 80						
	Advertising . . . . .	3 00						
	Balance of appropriation unex- pended . . . . .		\$16,062 42					
Dec. 31,			862 58					\$16,925 00
			\$16,925 00					
APPROPRIATION FOR AID TO NORMAL PUPILS.								
	1880.		1880.	Appropriation . . . . .		1880.	Appropriation . . . . .	
1880. June 9,	A. G. Boyden, for thirty-five pu- pils in the Bridgewater School, Ellen Hyde, for eleven pupils in the Framingham School . . . . .	\$514 70						\$4,000 00
	D. B. Hagar, for forty pupils in the Salem School . . . . .	161 80						
	J. G. Scott, for thirty-four pupils in the Westfield School . . . . .	588 20						
	E. H. Russell, for sixteen pupils in the Worcester School . . . . .	500 00						
		235 30						
			\$2,000 00					
			2,000 00					
			\$4,000 00					\$4,000 00
Dec. 31,	Balance unexpended . . . . .							

## APPROPRIATION FOR AGENTS.

1880.		\$2,250 00	1880.	Appropriation . . . . .	\$5,400 00
	George A. Walton, salary . .	258 50			
	George A. Walton, expenses . .	2,250 00			
	E. A. Hubbard, salary . .	402 37			
	E. A. Hubbard, expenses . .				
		<u>\$5,160 87</u>			
		239 13			
		<u>\$5,400 00</u>			
Dec. 31,	Balance unexpended . .	. . .			<u>\$5,400 00</u>

## APPROPRIATION FOR TEACHERS' INSTITUTES.

1880.		\$35 75	1880.	Appropriation . . . . .	\$2,000 00
	Institute at Athol . .	37 50			
	" Fitchburg . .	55 87			
	" Hudson . .	66 03			
	" Ashburnham . .	68 00			
	" Enfield . .	10 00			
	" Mason Street, Boston . .	67 12			
	" Montague . .	53 81			
	" Plainfield . .	91 96			
	" Bedford . .	79 78			
	" Rehoboth . .	59 07			
	" Medway . .	68 92			
	" West Boylston . .	127 00			
	" Abington . .	112 55			
	" Natick . .				
		<u>\$933 96</u>			
		1,066 04			
		<u>\$2,000 00</u>			
Dec. 31,	Balance unexpended . .	. . .			<u>\$2,000 00</u>



## FINANCIAL STATEMENT OF THE BOARD OF EDUCATION—CONCLUDED.

Dr.	APPROPRIATION FOR INCIDENTAL EXPENSES OF BOARD.			Cr.
1880.		1880.	Appropriation . . . . .	\$1,200 00
Printing school registers . . .	\$586 91			
Postage, stamped envelopes, &c. .	196 54			
Printing . . . . .	86 64			
Packing and expressing reports, .	55 00			
Expressage and messenger ser- vice . . . . .	38 20			
Stationery . . . . .	28 20			
Compiling statistics and returns, .	16 50			
Repairing furniture . . . . .	15 00			
Telegrams . . . . .	4 52			
		\$1,027 51		
		172 49		
Dec. 31, Balance unexpended . . .		\$1,200 00		\$1,200 00

## APPROPRIATION FOR TRAVELLING EXPENSES OF MEMBERS OF THE BOARD.

1880.		1880.	Appropriation . . . . .	\$400 00
Paid Abby W. May . . . . .	\$26 03			
Charles B. Rice . . . . .	58 49			
E. B. Stoddard . . . . .	41 00			
A. A. Miner . . . . .	7 77			
William Rice . . . . .	41 00			
Horatio G. Knight . . . . .	53 20			
C. C. Hussey . . . . .	66 81			
		\$294 30		
		105 70		
Dec. 31, Balance unexpended . . .		\$400 00		\$400 00

C. B. TILLINGHAST, Treasurer.

## APPENDIXES.



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A.

REPORT OF GEORGE A. WALTON,  
AGENT OF THE BOARD.

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## REPORT.

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GENTLEMEN OF THE BOARD OF EDUCATION, — The duties of my office have been essentially the same the past year as in previous years. They have consisted of visits to the towns for the purpose of discussing with the teachers, committees, and people, methods of teaching and school management; also of visits to the schools for the purpose of observation, examination, and instruction. I have attended and addressed associations of teachers, meetings of school committees, and have aided in the instruction at the teachers' institutes.

Never was there apparently a more undoubting faith in the schools or a more jealous care exercised over them. Among the teachers there is a lively interest in the study of modes of teaching, and this interest is generally fostered by the opportunities for self-improvement liberally granted by the committees and people. And still the most striking thing about the schools is the marked contrasts in the results they are producing. Existing side by side are schools whose qualities can hardly be expressed in degrees of comparison. While one is in many respects an eminent success, the other is an equally eminent failure.

The terms "success" and "failure" are used, of course, in a relative sense. Used in an absolute sense, they apply to few if any schools: few are absolutely worthless, no one is absolutely perfect. Relatively the terms are applicable to many schools, and between the extremes there are all grades of merit. But, were the terms applicable even in the restricted sense to any other public institution, it would be cause for prompt investigation, and for the application of means which should make the poorest to equal the best. If it be true that any one of our schools is making but an empty return for even the small allowance that may be given for its support, it is no less a cause for



the solicitude of the parent and of every patriotic citizen of the Commonwealth.

In what do the contrasts in the schools consist? There are differences that are characteristic of different schools, or personal to particular teachers, which are to the credit of both. They relate to the constitution of the one or the other; the modes of conducting the schools will be as diverse as the individualities of persons. But all the modes should conform to principles determined by the ends the schools are to reach. In seeking to discover a remedy for defects, the attention should be directed to the mental culture produced, to the kind of activity secured, and to the knowledge given to secure this activity.

Tests submitted in the schools show that there is a wide range not only in the results reached in the acquisition of the facts which lie at the foundation of an education, but in the power to use these facts in a practical way; in the facility to use language oral or written in expressing thoughts; in the ability to discover the thoughts others have expressed in written or spoken language; and especially in the power to make careful observations and accurate analyses, and to form independent judgments.

In view of these evident contrasts, the practical question is, How can the defects be made to disappear, and the school which has but a formal existence be made a vital power in the education of the children, and no longer disappoint the confident hope with which it is cherished? To answer this question we must seek for the causes which produce these defects.

One cause is the want of proper qualifications in the teachers. There is certainly no indifference on their part to results found in the schools. For faithful devotion to duty they challenge comparison with any other profession or class of persons. And, so far as the keeping of the schools is concerned, if we consider only the good order and conformity of the children, with their faithfulness in application, most of the schools are in a satisfactory condition.

But there is a constant change going on in the corps of teachers. There are about eight thousand different teachers employed in the State during the year: assuming that the average term of service of the teacher is five years, sixteen hundred new teachers annually enter the ranks, which are

annually depleted by an equal number. Of these sixteen hundred, about two hundred and fifty have been trained at normal schools. Leaving out of the account those that have served longer or shorter apprenticeships in city training-schools,—an item coming to be of importance in the qualification of teachers,—five-sixths of this accession are presumed to be ignorant of the science, and untrained in the art, of teaching. If, now, we realize how difficult an art teaching is, how slowly it is learned by experience, and that it can be completely mastered in no other way; that teachers teach long years without discovering that there is any science, and that comparatively few have mastered the science when they cease to teach,—we shall be able to account for the varying degrees of success attained in the schools.

The establishment and maintenance of the normal schools by the State is an admission of the necessity of special training of all teachers in the science and art of teaching. Is it not an anomaly, that, with this principle well established in our theory of education, five out of six of the teachers should be admitted to the schools without special preparation, and be left to fail, or attain to excellence by the slow and sacrificial process of experiment?

Where ability and tact are combined with training or experience in the teacher, a superior school is found to exist: if one or the other of these is wanting, such a school is impossible. To be sure, the good teacher may be hampered by insufficiency of means, hindered in his method, or checked in his enthusiasm; and the poor teacher may be helped, encouraged, and stimulated, taught a method, and trained to apply it; and so the superior teacher may become the subject of routine, while the one who was far inferior may steadily improve, and, by patient plodding, at length outstrip the other. But the oft-repeated aphorism still holds true: "As is the teacher, so is the school." This must always be assumed in whatever may be said of the causes which make the schools what they are, or in seeking a remedy for existing defects.

Were there only isolated examples of defective or superior schools, their existence might be attributed wholly to the presence or absence of a teacher with the above requisites for teaching; but, as a fact, in some instances, and to a considerable extent, the differences in the schools are characteristic of the

schools of a whole town. While in every school there are exceptionally good or poor scholars, and while in every town there may be some excellent schools, or the reverse, there are towns all of whose schools rank high, and there are others whose schools are correspondingly low. Here, then, are differences, for which it would seem the teachers cannot be wholly responsible.

One cause for these is, obviously, the different theory adopted by school officers, in common with teachers, of what education is, first as to the ends the school should aim to accomplish. One theory makes the end to consist in learning what particular authors have written upon certain branches of study; another makes it to consist in the culture of the powers of the mind, through their exercise in gaining knowledge. The one proposes to secure the knowledge of certain facts, regardless of the method; the other makes the vital thing in the process, the method. The latter does not value the knowledge less, but the method more. In the one case the knowledge is the end; in the other it is only the occasion, the activity of the mind being the cause, of which the effect, or end, is the mental culture.

But where there is a tacit agreement as to the ends the schools should accomplish, there is a difference, again, as to the means. In one school the time is spent in keeping the pupils busy in committing to memory the words of the lessons assigned from a book, and in reciting these words in response to questions read by the teacher. There may be the entire absence of all teaching, of all proper tests of the pupil's knowledge of the ideas the words are intended to convey, — and they may convey to him no ideas, or erroneous ones even, — and yet the school will be deemed a decided success. It may be, that, in such a school, only the most superficial knowledge of the elements is contemplated; rapid strides may be taken over a wide range of topics, on the presumption, where there is any theory about the matter, that, as the mind matures and experience presents the occasion, what has been but superficially studied, or but blindly committed in words, will in later years ripen into accurate knowledge. In another school the order of studies has reference to the order of development of the mental powers; a certain kind of instruction given is designed to train the powers of observation, another to train the memory

and imagination, another the reflective powers. The method leads the pupil to discover the truth, and to make statements in accordance with the discoveries he makes; no mere form of words committed to memory is considered worth the time required: the process is regarded as dangerous, rather. All the topics are taught in the most thorough manner; the more elementary they are, the greater the need of care in the teaching; no slightest step is omitted; each lesson has all the logic of a well-arranged argument; the pupil is tested for the accuracy of his knowledge; and, with his culture, he is made to acquire a method for future study.

There is no little difference of opinion, too, as to what shall be studied. For the elementary grades of schools, one would limit the curriculum of studies to reading, writing, and arithmetic; another would give geography, singing, drawing, and physical culture equal prominence; while a third would have the elements of botany, mineralogy, zoölogy, and history added; and some would include the technicalities of grammar. Then by writing is understood, on the one hand, practice in making set copies; by arithmetic, the learning of the text and "doing of the sums" of a given book, and perhaps of a limited portion even of that; and by reading, the calling off of the words in the lessons of a series of readers. On the other hand, writing includes not only systematic instruction in penmanship, but also composition, with all that that term implies. Reading includes the power of grasping at once the ideas and thoughts expressed in simple words and short sentences, and implies a knowledge of all that is named and described in the lessons read, also facility in communicating this knowledge to others. Arithmetic, too, includes the training of the pupil to make problems from data found outside any text-book, as well as teaching him to perform the mechanical operations, and apply them to the numerous examples arising from the transactions of business life, and found in all good text-books.

It will, I think, be admitted that much besides reading, writing, and arithmetic, even in the broadest sense of these terms, can and must be taught in the elementary schools; that much should be taught wholly independent of these branches. But, whatever else is neglected, there will continue to be a demand for the most thorough teaching of these; they will be recognized as fundamental to an education, most useful as



instruments, and adapted, when properly taught, to secure a varied activity to the mind. I should hope, however, that, in the study for what constitutes a proper course of studies for the elementary schools, the discovery would be made that whatever is demanded for the full development of the faculties of the child, and whatever he may need to know to enter upon advanced courses of studies, can be taught with reading, writing, and arithmetic, without any increase of time, on the whole, and with a positive gain, so far as the knowledge of these branches is concerned.

In some towns no uniform course of studies — indeed, no course whatever — is prescribed. Each teacher is left to work on without any such guide, or to construct such a course as his previous experience or present attainments may suggest. In others, there is a well-arranged course of studies, which all the teachers are expected to follow. The result is a wide range of studies in the schools of one town, and, with the frequent change of teachers, a varying range at different times in the same school; while in another town, the studies being limited by a proper course, greater uniformity exists in the different schools and in the same school at different times. By the former plan the inexperienced and incompetent teacher exerts the same influence in his way that the more efficient and accomplished teacher does in his. The latter plan gives the teacher of little or no experience a limit, within which he may try his experiments, and so subjects the children to less serious loss than if, as in the other case, the teacher were left to be wholly a law unto himself; and the course becomes to the teacher of experience a good highway, along which the children make constant progress.

The examinations which were made last year in two grades of the schools of Norfolk County, and of which a report was published in the Appendix to the Forty-third Annual Report of the Board, originated in an effort to find a proper basis for a course of studies, which, so far as the leading branches of study were concerned, should be uniform for the county. So different were the theories of what the schools should aim to accomplish, and so diverse the methods and various the means for carrying out the theories, it would be hardly possible to make out a course which would be generally accepted throughout the county. No detailed report was at first contemplated, but simply a statement of the general result upon the basis assumed.

But the examinations revealed such a diversity of attainments in these fundamental branches, that it seemed advisable to present to the school officers of the county a statement of the results in detail, if for no other reason than that their study might lead to greater uniformity in the aims and methods of the schools. The study will prove equally profitable for other parts of the State; for the differences in the schools are general, and the causes for them common.

Another cause for the differences under consideration, and which is usually in some way related to the course of studies, is the examination of the schools. Where there is no course of studies, or where the course varies with each change of teachers, no proper examination of the schools is made. It is true of the lower and intermediate classes in many of the schools, that they are never subjected to any searching and critical examinations. An examination for promotion to the high school, provided there is such a school and such an examination, is relied upon as the test of the work done in all the grades below; applied to the few fortunate ones who reach this higher grade, the examination for the high school gives slight clew, often none whatever, to the kind and quality of the training received by the mass of the children compelled to leave the schools at a point lower down. Promotions from grade to grade in such schools are made upon no other basis than the age of the pupil, the pages of books passed over, or the necessity of making room for new-comers. The results to the scholarship can be easily inferred. A proper course of studies necessitates frequent visitations; it can be effectively operated only by systematic examinations, and these must be made in all grades of the schools. Promotions can then be based upon an absolute standard of qualifications; the pupils will be thus stimulated to healthful activity, and attain to accurate scholarship.

Observations in the schools confirm what is implied in the preceding paragraph, that where there is no well-arranged course of studies, the schools are very imperfectly graded. They also show that the schools are well graded in proportion to the vigilance of school officials in holding the teachers to the prescribed course through their examinations, and through the examination of the several classes in passing over the course prescribed. And actual results demonstrate that at least one year in six is saved in completing the ordinary branches of study by even an



imperfect grading of the schools. The difference in the grading will account for very considerable differences in the schools.

It will be noticed that in making the above suggestions, I have had in mind chiefly the elementary work of the schools; my attention has been more especially directed to that grade: the contrasts in the more advanced grades, it would be readily inferred, cannot be less marked. The differences in all grades are readily seen; the causes are not difficult to discover. With the constant changes in our population, there must be a tendency to an increase in these differences. A study of the causes must lead in every instance, as it has already in many, to the discovery that the remedy is largely with the people. It consists in having trained teachers, a philosophical method of teaching, a carefully prepared course of studies, systematic examinations, well-graded schools, and, as a means of securing these, the most skilful supervision of all the schools.

Wherever in a town there is a person acting as committee or superintendent, who is shrewd in the selection of teachers, apt in directing them, and who is conversant with methods of teaching, and who gives sufficient time to impress his supervision upon all the schools, there the schools show correspondingly good results. If, under such circumstances, this person is an expert in one branch taught, then the schools attain to excellence in that branch; if he be an expert in all the branches, then all the schools attain to a high degree of excellence in all the branches taught. So universal is this observation that it is now generally admitted that the schools depend almost as much upon efficient supervision as upon skilful teaching; and that the schools are no exception to the general rule, that, where important interests are involved, it is wise economy to commit the general management to the hands of one competent superintendent.

Respectfully submitted.

GEORGE A. WALTON.

Boston, Jan. 1, 1881.

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B.

REPORT OF E. A. HUBBARD,

AGENT OF THE BOARD.

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## REPORT.

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GENTLEMEN OF THE BOARD OF EDUCATION,—It became my duty again this year to make the arrangements for the teachers' institutes; and, at the request of your secretary, I write a report of them. Their object is the improvement of the public schools of the Commonwealth. While the means for doing this are various, there are two ends which lie especially within the scope and purpose of the institutes. These are the securing of better teachers for the schools, and the creation of a better public sentiment in any community toward its schools. These are so related, that whatever tends to promote the one promotes also the other. Indeed, they act and re-act each upon the other. Better teachers tend to create a better public sentiment, and a better public sentiment results in securing better teaching.

Any one who visits the schools in the smaller towns of the State, becomes acquainted with the teachers, observes their methods, and notes the attainments of the pupils, will be made to feel that the results are unsatisfactory,—that something better is required, and is possible. Nor is this by any means confined to the small towns, though it is more generally true of them. The teachers in those schools are, for the most part, young and inexperienced, without professional training, and oftentimes with but a limited education; or they are those, who, having had a long experience, have fallen into ruts, and have failed to establish a reputation which has made them sought for by those demanding better service, and offering better pay. To assist those, and supply the lack of experience and of professional training so far as possible, and to lift these out of the ruts and improve their methods, is the primary object of the institute; and the programme for the day exercises is arranged with that end in view. There were exercises in reading and in numbers, in geography and in botany, in elementary physics and in

chemistry, in drawing and in methods of teaching ; and all these were designed to bear directly upon the work inside the school-room, to make better teachers, and to furnish better teaching.

While it is as true now as it ever was, and it is true always, that "as is the teacher, so is the school," public sentiment and the demands of the community have much to do with the making of the teacher. While, therefore, the institutes are intended to bear directly upon the teacher, they tend almost as directly to affect the citizens, to awaken an interest on their part, and to produce a quickened and healthy public sentiment. And this is necessary. The schools are public. Common schools we call them ; and the terms we give them imply that they belong to the people. Hence the people, through the school committee, have the control of them ; and they respond readily to any change in public sentiment, to any demand of the community. Hence the necessity of reaching the citizens ; for any one who will visit the smaller towns of the State, — towns of one thousand inhabitants or less, and there are many such, — and inquire into the condition of the schools, will be surprised to find how little the people know of them, and how great is their indifference toward them. A few men in every town, and a somewhat larger number of women, especially if they are upon the school board, know something of the schools, of their defects, of their needs, and of the work they are doing ; but the mass of the people are strangers to these things. If the times are good, the people are busy in taking advantage of them ; if bad, every effort is requisite to eke out a scanty support : and the benefits of a good school are so intangible, so indefinite, and so remote, that other nearer objects engross the attention. If the bridges have been swept away by a freshet, or are out of repair, they must be rebuilt and be made safe ; for the town is liable to a suit for damages : the roads must be kept in good condition for the convenience of the travelling public. If a new enterprise starts up in some far-off corner of the town, and in consequence new roads are required, they must be constructed ; for of necessity any thing which promises material prosperity must be encouraged. And as "it is more blessed to give than to receive," and as "the poor we have with us always," there must be ample provision for the pauper department. But there are no weights or measures, no scales or rules, no invariable and appreciable standard, by which a good school can be determined,

—no estimate of it in dollars and cents by which its worth can be expressed and its value be set forth; and hence, as a general truth, appropriations for schools in a time of retrenchment are the first ones to be reduced. Men are busy, one with his farm, another with his merchandise; women, with their household cares and their domestic duties; and if there is no special complaint, nothing extraordinary calling attention to the schools, their existence is hardly recognized. Such towns need to be waked up, its citizens to be brought together, the attention for a time at least to be taken off from the weather and its effect upon their crops and their pecuniary prospects, and brought to bear upon their schools and their school duties. While, therefore, the exercises of the institutes during the day have had direct reference to the teachers, the evening lectures have been devoted to the people.

To reach the teachers who most needed to be influenced, and the people whose interest in their schools most needed to be kindled, has been the policy of the secretary for the last two or three years. He has not only held the meetings in small towns, but in a community of small towns, and hence the number attending is less than in previous years. With the hope of reaching more of the towns and of influencing a greater number of citizens, he decided to hold the institutes for a single day each, and to have a larger number of them. Accordingly I undertook to make arrangements for a largely increased number, but circumstances over which I had no control prevented as large a number as was anticipated. I corresponded with various school committees upon the subject, and afterwards visited more than eighty towns, several of them more than once, to consult with the school boards, to enlist their sympathies, secure the suspension of the schools under their charge, and the attendance of the teachers. Two were held early in the season: one at Athol, April 2; one at Fitchburg, June 8. The first in the autumn was held at Hudson, Sept. 15; the next at Ashburnham, Sept. 17; then one at Enfield, Sept. 22; one at Montague, the 24th; at Plainfield, the 29th; at Bedford one, Oct. 6; at Rehoboth one, Oct. 8; at Medway one, Oct. 15; one at West Boylston, Oct. 22 and 23; one at Abington, Dec. 3; and the last at Natick, Dec. 10. There has been so much in common at all of these, so great a similarity in the exercises, a good spirit so uniformly on the part of teachers and citizens, that the insertion in this report of some one pro-



gramme and a careful description of any one of the institutes would give a pretty correct idea of all of them. Still, each had some peculiarity, enough perhaps to justify particular mention. That at Athol, early in April, was held at that time at the suggestion of some of the school committees of the towns in the vicinity. The summer terms of their schools were about to open, and they thought the hints, the suggestions, and the instruction given, would, on that account, be likely to be applied. Besides, the association of school officers of that region was to hold its spring meeting at about that time, and it was thought that each meeting would have an effect upon the other, and each be the better for the other. Athol, Royalston, and Petersham, were fully represented by their school committees and teachers, and several other towns partially.

The teachers of Fitchburg have an association for their mutual improvement. At one of its meetings it instructed its president, Mr. B. F. Brown, of the Day-street grammar school, to invite the secretary and agents of the Board to hold an institute with them which should take the place of one of their regular monthly meetings. At the request of the association the school committee readily granted the teachers the day, and the superintendent of schools, Mr. J. G. Edgerly, entered heartily into the plans, and contributed largely to their success. Besides the teachers of Fitchburg, — a number large enough for a good institute, — Leominster and Lunenburg sent their teachers, and a few were present from other towns.

Two years ago an invitation came from the school committee of Hudson to hold an institute with them; but, as two were held near them the year before, they accepted in its stead a day's work of the secretary and agents with their teachers. But now the offer of one was made them, and promptly accepted. Dr. J. L. Harriman, the chairman, and Mary J. Houghton, the secretary, assisted by the teachers of the high and the grammar schools, did every thing in their power to make the meeting pleasant and profitable. The weather was unfavorable, but the attendance was large. Hudson, Marlborough, Berlin, and Bolton sent their teachers, and a few were present from other towns.

The school committee of Ashburnham asked for an institute with them in the spring; but, as it was not convenient at that time, they were asked if the invitation was limited to that sea-

son, and the response came back that they desired one at the convenience of the Board of Education. One was appointed, and at once the trustees of Cushing Academy offered the secretary the use of their academy. Another has said of the Academy that "it has one of the finest buildings in the State." The entire building was thrown open for the use of the teachers. The principal, Mr. James E. Vose, suspended his school, and, with his assistants and more than thirty of the students, was in attendance. The school committee, including Mr. F. A. Whitney, chairman, Mr. C. F. Rockwell, secretary, the principal of the academy, Mr. Vose, and one of the assistants, Mr. F. D. Lane, devoted themselves earnestly and effectively to the interests of the meeting. The day exercises were held in the academy, the evening sessions in the town hall. The students, by their prompt responses to questions, by their correct deportment, added much to the interest of the occasion. The attendance of teachers, accompanied by members of the school committees, from Ashburnham, Ashby, Westminster, and Winchendon, was very general, and there were a few present from other towns near and from New Hampshire.

Enfield had never before been favored with an institute; but the chairman of the school committee, Capt. W. B. Kimball, aided by Rev. Mr. Ewing and other prominent citizens, spared no pains and left nothing to be desired on their part to make this a marked success. Quite a large number of pupils from the village schools was present, giving close attention to the exercises, and profiting by them. Belchertown was represented by three members of its school committee and its teachers, Greenwich by two of its committee and its teachers, Ludlow by the chairman of its committee and its teachers, and Ware by its teachers and a large number of pupils from its high and its grammar schools. We have elsewhere had an attendance of pupils from the towns in which the institutes were held, but I do not recall an instance of pupils in the schools of other towns coming in a body to take their places beside their teachers as members with them.

Montague, the largest town territorially, and nearly if not quite the largest in population in Franklin County, is very unfavorably situated for any meeting of its own people. Turner's Falls, a thriving village in its northern borders, is several miles distant from the centre, and its railroad communication is

through Greenfield, thence to Montague. A part of its inhabitants and some of its schools are in the village of Miller's Falls, and there are at least two other villages. Notwithstanding these unfavorable circumstances, the institute was successful. Under the management of the chairman of the school committee, Mr. Seymour Rockwell, and its secretary, Mr. Isaac Chenery, ample arrangements were made for an unexpectedly large number from neighboring towns the first evening, and the attendance throughout was good.

It was in consequence of the earnest pleading of Miss Sarah E. Howlett, one of the school committee and also one of the teachers, seconded by the other members of the school board and other prominent citizens, that an institute was held in Plainfield. The town has but a few hundred inhabitants, and maintains only five schools. Still the enthusiasm was unbounded. Such an educational meeting had never been held there before, and it was a great occasion to that people. It had been made the topic of conversation for weeks before, and the subject of prayer by those having the best interests of the people and of the schools at heart. It was held in the village church, — Rev. Solomon Clark, pastor, — was attended largely by the people of the town, and to a noticeable extent by prominent citizens from the surrounding towns. Were we to count all such as members, it would make this institute one of the largest, though held in a small town and surrounded by small towns, and without railroad facilities.

When the proposition was made to the school committee of Bedford to hold an institute with them, a meeting of the citizens was called, and a favorable response came back from Mrs. Lunt, the secretary of the meeting. The particular time was not conducive to a large attendance from the towns in the region; for the meeting of the American Board was held that week near Bedford on one side, and a conference of the Unitarians upon another. Still, under the leadership of the committee, Mrs. O. J. Lane, W. J. Stoddard, and Mrs. Carrie Bacon, there was no lack of interest. The church in which the meeting was held, and the hall where the collation was served, were profusely decorated with flowers, most of which had been carefully cared for by the pupils of one of the schools, and was their tribute to the members of the institute.

The next institute was held at Rehoboth, another town with

no railroad facilities. There is no hotel in the place; but all needful arrangements for the entertainment of officers and members were made by the school committee, William L. Pierce, Mrs. Martha S. Bowen, and William H. Marvel, and were highly satisfactory. The neighboring towns, Attleborough, Dighton, and Seekonk, were quite fully represented.

The invitation from Dr. Daniels of the school committee of Medway to hold an institute with their teachers was received late, but circumstances favored a ready acceptance. Only a few towns, Franklin, Holliston, and Medfield, were invited to send their teachers; but the interest was greatly increased by the attendance of fifty pupils from the high school of Medway, taught by Col. W. H. Chase. Their deportment, their attention, and their enthusiasm were worthy of imitation, and indicated good government elsewhere and a proper self-respect.

West Boylston, though near the heart of the Commonwealth, had never had an educational meeting of this kind; but now the chairman of the school committee, Mr. George F. Howe, and the secretary, Mr. Harris, assisted by other citizens, entered heartily into the work of preparation. The towns invited responded promptly. The schools of Clinton were suspended by vote of the committee, and the teachers were required to attend. Teachers from Boylston, Clinton, Holden, Lancaster, Princeton, Shrewsbury, and Sterling, were present, accompanied in most instances by one or more of their school committee.

For satisfactory reasons the institute at Abington was postponed to the first week in December. The arrangements for it were made by Rev. Horace W. Wright, secretary of the school committee, and through him invitations were extended to the committees and teachers of South Abington, Rockland, and Brockton. The first two towns named were, until recently, a part of Abington, and so the invitation was to come back to the old home. The response was generous and full, every teacher from Rockland being present, and the attendance was very general from the other towns named. The secretary of the Commonwealth, Hon. Henry B. Peirce, was present at every exercise, rendering valuable assistance by suggestion and service. Pupils from the high schools were present in good numbers.

The following week the last and the largest institute of the season was held at Natick. The arrangements for it were



made by G. D. Tower, Esq., chairman of the school committee, and Mrs. Mary C. Reynolds, secretary. These arrangements were complete and satisfactory in every respect. The exercises of the day were held in the high-school room, which was filled to its utmost capacity. His Excellency the Governor attended a part of the day, and his presence, and especially his words, gave interest to the occasion. Many of the pupils of the high school were present, and, led by their teacher of music, cheered us with their songs. A private hall was generously furnished without expense for the evening lectures.

In all the towns the citizens responded generously to the requests of their respective committees to furnish free entertainment. Sometimes it took the form of a collation at noon, sometimes both at noon and at night, while in other cases the teachers were taken to the homes. At these collations the tables were not only loaded with food, ample and abundant to meet the demands and supply the wants of the body, but also decked with flowers to minister to the sense of beauty and the wants of the soul. All this has been so universally true, that I could not speak of it in connection with each without a frequent, almost constant repetition of myself; and so I have chosen to speak of it once for all, and to say that nothing was wanting. Were I to speak of any town or any class of persons in particular, I should name the school-children of Natick, who made a large contribution in money for the entertainment of the teachers. I wish, therefore, in behalf of the members of the various institutes, to thank the citizens who so generously and so bountifully provided for them.

The instruction for the most part was given by the secretary, Mr. Dickinson, by Mr. Walton, agent, by Mr. Isaac J. Osbun of the State Normal School at Salem, and by Rev. A. E. Winship of Somerville. A few lessons were given by others of whom I will speak later.

The secretary presented a method of teaching, and showed how it could be applied to external objects, or objects of sense, and to subjects, or those which exist nowhere outside the mind. Mr. Walton gave exercises in arithmetic, limiting his instruction mostly to numbers and their various combinations; also in reading, showing how children should be taught to read, also how a reading-lesson should be prepared by older pupils. Mr. Osbun gave in each institute one lesson in elementary

physics, and one in chemistry, in each of which he showed a method of teaching those subjects, and also with how simple apparatus prepared by the teacher himself or obtained at a trifling expense, much of each subject could be taught in the elementary schools. Mr. Winship gave exercises in geography and in botany. He showed how he would teach geography, dwelling principally upon the elementary work, or, more exactly, upon the work preparatory to the study of geography. He did not limit his instruction in botany to flowers and their analysis, but embraced plants, roots, and the wayside grasses. Walter Smith of the Normal Art School, Boston, and Mr. Briggs of the same school, and Mrs. Emma F. Bowler, teacher of drawing in the schools of Newton, gave exercises in drawing. Mr. C. Goodwin Clark, principal of the Gaston Grammar School, Boston, gave two or three lessons especially valuable as showing teachers what they may omit in teaching geography. Professor W. H. Niles gave a lesson in geography, having a bearing upon physical geography; Miss Jones of the normal school at Worcester, one in elementary geography. Mr. A. G. Boyden of the normal school at Bridgewater gave a lesson in form; Mr. George H. Martin of the same school, one upon mineralogy; and Miss Ellen Hyde of Framingham, on English literature.

It was the purpose of the secretary to make these exercises valuable to the teachers, not only for the knowledge of the subjects imparted, but especially valuable as models of teaching. They received the closest attention, and were, apparently, of great interest.

The evening lectures were, for the most part, given by the secretary and by Rev. A. D. Mayo. The secretary set forth the organization and the present needs of the schools; and his lecture was followed by a discussion of educational topics by the agents of the Board, by members of the school committees, and by other gentlemen. Rev. Mr. Mayo's lectures were designed to show the needs of our country schools, to awaken a greater interest in them, and secure a warmer place for them in the hearts of the people; to make a demand for better teachers and more efficient supervision, for better schoolhouses, and suitable means of instruction.

Col. Homer B. Sprague, principal of the Girls' High School, Boston, gave one lecture upon Milton, and Professor W. H.



Niles, two upon "The Origin of Mountain Scenery," illustrated with the stereopticon. The lectures were of great interest to teachers and citizens, and called forth many words of approval.

The officers of the various railroad corporations, upon whose lines institutes were held, generously granted free return-tickets to the members, thus doing the teachers a favor, and showing an appreciation of their services.

The thanks of the Board of Education and of the members of the institutes are hereby tendered those officers.

A review of the work in this department for the year shows a large attendance of teachers and of citizens, and great enthusiasm among the people.

Respectfully submitted.

E. A. HUBBARD.

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C.

INDUSTRIAL EDUCATION AT GLOUCESTER.

BY L. H. MARVEL,  
SUPERINTENDENT OF SCHOOLS.

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# INDUSTRIAL EDUCATION AT GLOUCESTER.

BY L. H. MARVEL.

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IN September, 1878, Miss Marian Hovey, one of the trustees of the estate of the late George O. Hovey, placed at the disposal of the school committee of Gloucester a sum of money to be expended for the industrial education of boys. Provision was made for the instruction of four classes of twelve members each, in the use of some of the tools employed in carpentering. Mr. C. H. Dow, a practical carpenter, was engaged to instruct the classes.

A shop was fitted up with benches to accommodate twelve workmen; and, in addition to the vise and bench-hub, the following set of tools was furnished for every member of the class: a rule, try-square, hammer, jack-plane, jointer, smoothing-plane, bit-stock, bit, mortise-gauge, mallet, one-half inch mortising-chisel, one and one-quarter inch paring-chisel, chalk-reel, rip-saw, panel-saw, screw-driver, brad-awl, oil-can, oil-stone, bench-hook.

The pupils were assigned places at the commencement of the course of lessons, — students using the same sets of tools in succession, — and were held responsible, throughout the whole course, for keeping the tools in good order, for using them carefully, and for returning them to the proper place at the close of each lesson. Habits of neatness, carefulness, and order, are thus established; and the acquirement of such habits is, by no means, the least of the advantages of any form of industrial training.

Before a pupil is permitted to use the tools, he is taught their names and uses; e.g., —

**THE JACK-PLANE.** — The teacher exhibits a jack-plane to the class, and requires each pupil to take such a tool from the

compartment assigned for his use. After giving its name, if the class cannot name it without assistance, the instructor directs the attention of his pupils to the several parts of which the plane is composed, teaching the name of each part. He shows the class how to remove the cap-iron, and take out the plane-iron. After this has been done to his satisfaction, he requires the pupils to adjust the plane-iron, and to set the cap-iron. The pupils are then prepared to employ the jack-plane, although its use is not fully taught until they can sharpen the plane-iron, as well as adjust it. When the expression, "*use of*" any implement, occurs in the description of the work of this school, just such an exhaustive and minute observation and study has preceded its use as is indicated in this illustration.

The following plan of instruction, which provides for forty lessons each school-year, has proved satisfactory, and has been adopted. The time of each lesson is one-half a regular session of the school; four classes can thus be accommodated every day.

**FIRST LESSON.**—The pupils are each furnished with blocks eight inches long, five and five-eighths inches wide, one and seven-eighths inches thick.

*Use of the Vise.*—The students place the blocks in the vises, so that the ends shall be level.

*Use of the Rule.*—Each block is measured, and its dimensions stated. The width of the block is divided into five equal parts.

*Use of Try-Square.*—Pupils are taught to square across the block, and to mark, with a pencil, the division lines of the five equal spaces. The thickness of the block is halved, and a line drawn through the middle from points at the centre of each end, making ten squares upon the end of the block.

**SECOND LESSON.**—The block is reversed, and the preceding lesson reviewed.

*Use of Hammer.*—Pupils are required to strike a square blow in the middle of each square. The indentation of the hammer indicates quite accurately the measure of success, which, in most cases, is not very flattering.

*Use of Different Kinds of Nails and Spikes.*—Nails are driven in the centre of each square. The students are required to draw the nails, to straighten them when necessary, and to drive them again. The block is then taken from the vise and placed upon its side on the bench. The members of the class are

required to drive a nail in each corner of the block, one-quarter of an inch from the edges which form the corner; also to drive a nail into the centre of the block. In this exercise no measurement is allowed until after the nails have been driven.

THIRD LESSON. — *Use of Jack-Plane.*

FOURTH LESSON. — The class is supplied with rough boards two and a half feet long, ten inches wide, and one inch thick. After a review of the preceding lesson, one side of the board is planed. The same board is used to illustrate the use of all tools, until the twenty-first lesson.

FIFTH LESSON. *Use of Jointer.* — The class is required to joint the rough edges straight and square. The edges are proved by the try-square.

SIXTH LESSON. — The opposite side of the board is smoothed by the jack-plane: after which a lesson is given in spacing by the rule, and lining, with a chalk line, upon the surface just planed.

SEVENTH LESSON. *Use of Bailey's Patent Smoothing-Plane.* — The class is required to smooth the surface made by the jack-plane, and to remove the chalk lines.

EIGHTH LESSON. *Use of Saws.* — Cross-cut saw and rip-saw. The pupils square around the board from the tried side and tried edge, using the try-square, and then use the cross-cut saw to saw off one-half an inch from the end of the board. This exercise is repeated.

NINTH LESSON. *Lining (Length of Board) with Chalk Line, and sawing to Line with Rip-Saw.* — The lines are half an inch apart, and the exercise is repeated.

TENTH LESSON. *Use of Marking-Gauge.* — The pupils are taught to gauge different distances from the tried edge, and to run the gauge smoothly and accurately.

ELEVENTH LESSON. *Use of Mortise-Gauge.* — Practice similar to that indicated in preceding lesson.

TWELFTH LESSON. *Use of Bit and Brace.* — The class taught to bore in exact positions.

THIRTEENTH LESSON. Holes are bored half an inch from the tried edge, until, with those bored at twelfth lesson, there is room for no more. The gauge is then employed to run a line half an inch beyond the holes, and the rip-saw is used to cut off this portion of the board.

FOURTEENTH LESSON. *Striking out and boring for a Mortise.*



—The class employ the rule, square, mortise-gauge, bit, and brace at this time. A strip two inches wide is cut from the board they have been using.

FIFTEENTH LESSON. *Use of Mallet and Mortising-Chisel.* — Class cut the mortises.

SIXTEENTH LESSON. *Use of Paring-Chisel.* — Each pupil saws his strip in two with cross-cut saw, after squaring it properly. Upon the end opposite that in which the mortise was made, a tenon is made (using the cross-cut saw and paring-chisel) to fit the mortise.

SEVENTEENTH LESSON. Planing to gauge-mark with jack-plane and jointer.

EIGHTEENTH LESSON. Two strips, one three-fourths of an inch wide, are cut from the board by the rip-saw, and planed to gauge-mark one and one-half inches wide. These pieces are squared, and then cut into equal parts with a cross-cut saw. The ends are then “halved” together, making a square frame. The paring-chisel is employed in halving the ends together.

NINETEENTH LESSON. *Use of Brad-Awl and Screw-Driver.* — Similar to eighteenth lesson, except that the corners of the frame are screwed together.

TWENTIETH LESSON. Driving nails horizontally.

TWENTY-FIRST LESSON. Each member of the class is provided with a board, mill-planed, two feet long, eight inches wide, seven-eighths of an inch thick. The class employ jack-plane and jointer to plane the board out of wind.

TWENTY-SECOND LESSON. The pupils employ a knife (the knife is employed in all succeeding lessons, instead of a pencil, for accurate marking), try-square, saw-plane, and marking-gauge in striking out dove-tails.

TWENTY-THIRD LESSON. Employment of saw, mallet, and paring-chisel, in making dove-tails.

TWENTY-FOURTH LESSON. Sharpening tools and putting them in order.

TWENTY-FIFTH AND TWENTY-SIXTH LESSONS. Each pupil provided with a board such as was used in lesson twenty-one. The pupils make a square frame with locked joints.

TWENTY-SEVENTH AND TWENTY-EIGHTH LESSONS. Stock as in preceding lesson. A square frame is made with the corners mortised together.

TWENTY-NINTH AND THIRTIETH LESSONS. From a similar

board to those employed in the two preceding exercises, each pupil makes a square frame, with the corners mitred together. The mitres are struck out by measure, and the pupil is not permitted to use a mitre-box.

THIRTY-FIRST TO THIRTY-EIGHTH LESSONS (inclusive) are devoted to the construction of a box two feet long, one foot wide, eight inches high. Rough boards are provided; and the pupils are required to select and measure their stock, each for himself.

THIRTY-FIRST LESSON. Preparing stock, sawing, planing, jointing.

THIRTY-SECOND LESSON. Striking out stock for different portions.

THIRTY-THIRD LESSON. Halving sides and fitting ends.

THIRTY-FOURTH LESSON. Putting parts together.

THIRTY-FIFTH LESSON. Smoothing surfaces.

THIRTY-SIXTH LESSON. Fitting lid to box.

THIRTY-SEVENTH LESSON. Fitting butts.

THIRTY-EIGHTH LESSON. Fitting lock.

THIRTY-NINTH AND FORTIETH LESSONS. Special instruction in preparing and sharpening tools.

At the close of a year nearly every member of the class can do any of the work which has been attempted, as constant reviews are made by the employment of tools, the use of which had previously been taught in preparing stock for the special lesson of the day. An economical use of stock renders this item of expense merely trifling. Lessons three to twenty (inclusive) require less than three feet of stock, and the forty lessons only about twenty-five feet, nearly half of which is used in making the box.

The following extract from the school report of the city of Gloucester (1880) shows what changes have been made in the original plan for conducting the school, and also indicates something of the estimation in which it is held, and of the results it has attained:—

“The Industrial (carpentry) School has pursued essentially the same course, since its establishment, as was marked out in the school report for 1878-79. But, during last year, it was evident that, as the novelty wore off, pupils were not willing to devote a portion of the only holiday in the week to work. Absences occurred for insufficient causes, and a new departure was necessary in order to render the school efficient.

"In October, 1880, arrangements were made to accommodate pupils in the carpentry class one-half of each afternoon session on Monday, Tuesday, Thursday and Friday of every week (two classes each session). By this change regularity and punctuality in attendance have been secured; and from a membership of thirty pupils, in three classes, there was an immediate advance to a membership of ninety-six in eight classes, each receiving one hour per week. A few girls (six) were permitted to join one of the classes in 1878. There are now two full classes of girls, and there is one class composed partly of each sex. The work of the girls is equally as good as that of the boys, and they seem to enjoy it heartily.

"The attendance is entirely optional, nearly one-half the pupils in the first and second classes of the two larger grammar schools desiring to attend. There is no compulsion whatever, except that, while members of the industrial class, the pupils are required to be as attentive, industrious, and orderly as during any portion of their school work.

"There has been a training in the nature of the implements used, in the best methods of employing those implements, constant attention to those habits of method and system which are necessary to secure good work anywhere, and continued practice of the hand and eye in unison, requiring close application as well as clear perception and accurate manipulation. The result is tangible, and the proficiency is measured by no arbitrary standard of percentages, but is clearly defined, and may be estimated with much more precision than in any other line of school work. I do not know of any manner in which fifty to eighty hours can be employed in any form of education where the practical results can be more satisfactorily determined. If the pupil never sees saw, hammer, or plane again, the training he has received will be of value, whatever his vocation.

"Another consideration is, that by this means children will learn that study and preparation are required for proficiency in the trades as well as in trade. The ambition of the pupil to make a good joint or to execute neatly some form of mechanical work will be excited, and his attention will not be too exclusively directed to the performance of arithmetical problems supposed by many "practical educators" to prepare him especially for business. If the public schools can do any thing which will tend to teach pupils that it is equally as important, honorable, and difficult to be a successful artisan as to become a successful storekeeper, and if our own American boys will as willingly devote three or four years of early life to learning trades as to learning business, all of our important manufacturing industries will receive a new impetus; and hundreds and thousands of boys who are starving "respectably" in stores will turn their attention to the real *work* of life, and join the army of artisans. How it ever became a popular belief that there is more honor in exchanging commodities than in producing them, is a question that we have not time now to discuss; but the fact exists: and if the schools can show our boys and girls that there is as much to be learned in the workshops as in the stores, that honest labor anywhere is honorable, that prizes are found and fortunes made in manufactures as often as in trade, industrial education will effect a greater and wider influence for good than is generally conceded."

While the assertion is made that,—

“The object of this instruction is not to teach a trade, but to supplement education of the brain by education of the hand ; a natural development of that training of the hand and eye which may be commenced in the kindergarten (occupations), continued in elementary schools (drawing and elements of science), and culminate in the instruction of older pupils in the use of some of the implements employed in the trades,” —

It is evident that if regular instruction were given in the use of carpenters' tools in the first and second classes of the grammar schools, and in the lowest class of the high school, followed by work in iron (forging, filing, planing, &c.), during the remainder of the high-school course, boys who would graduate from such a school after thorough instruction in mathematics, science, and modern languages, might, at the end of three years' practical work in the regular shops, upon attaining their majority, become the most efficient of master-workmen. They would be competent to construct, readily and accurately, from well-drawn plans, whatever might be demanded, and often enabled to originate valuable designs ; while their knowledge of the laws of mechanics and the properties of matter would be of inestimable service to them if attempting important inventions of any kind. The earnings of such boys, for five years after leaving school at least, would be double those of the graduates of high schools as at present conducted ; and this is by no means an unimportant item.

The industrial training would furnish excellent mental discipline, as well as physical exercise, for any member of the school. It could not fail to be of great pecuniary advantage, also, to pupils whose future occupation would require the employment of tools similar to those in the use of which they had acquired dexterity while connected with the public schools.

The following is an approximate estimate of the expense of such education : A room, similar to the one at Gloucester, can be fitted up for a carpentry class at an expense not exceeding five hundred dollars. In such a shop, thoroughly and completely equipped for the purpose, one teacher can instruct four classes each day, twenty classes each (school) week, and do his work efficiently. Sixteen members may be permitted to attend each class without detriment to the progress of individual pupils. Allowing forty weeks for the academic year, and making the salary of the teacher twenty dollars per week, the annual cost

of instruction would be eight hundred dollars. The expense of stock would not exceed fifty cents *per annum* for each pupil. Upon this basis, the *per capita* expense of instructing three hundred and twenty pupils would be about three dollars a year. Probably the cost of instruction in forging, filing, &c., would be greater, — just how much, there are now no reliable data for determining. Certainly the expense of the initiatory work in carpentry is not very great; and, if attendance at the classes is made voluntary, those who do not desire the instruction would not be compelled to receive it. No argument can be advanced against such instruction, at public expense, which may not be applied with equal force in opposition to teaching book-keeping and surveying in the public schools, as *required* (*not permitted*) by the laws of the Commonwealth.

It is not the function of the public schools to furnish special education for any profession or trade, but to afford the best training and culture possible for the thorough preparation of pupils for the general duties of citizenship; and there is no legitimate objection to any exercise or study which tends to the proper development of the intellectual faculties, of physical strength, of manual dexterity, unless it can be shown that it is inefficient, impracticable, or too expensive.

L. H. MARVEL.

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D.

ANNUAL REPORT ON INDUSTRIAL DRAWING  
IN THE STATE OF MASSACHUSETTS  
FOR THE YEAR 1880.

BY

WALTER SMITH,  
STATE DIRECTOR OF ART EDUCATION.

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## ANNUAL REPORT.

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THOUGH I reported somewhat at length upon the history, character, and objects of the Normal Art School of Massachusetts, in the year 1879, there is yet reason why more than a passing reference should be made to it this year by me; for it is now, as before, the chief source of art education in the State, and continues its career under new and more favorable conditions.

### THE STATE NORMAL ART SCHOOL OF MASSACHUSETTS.

The representations which have been annually made by the Board of Visitors, of the inadequacy of the late premises in School Street, and appeals for new ones, in which reasonable accommodations should be provided, determined the Legislature of 1880 to remove the school into more extensive, and, at the same time, more independent and private, premises. The following extract from the Resolves of 1880 explains the objects sought by this removal:—

[Chap. 47.]

“RESOLVE AUTHORIZING THE STATE BOARD OF EDUCATION TO LEASE  
ROOMS FOR THE USE OF THE STATE NORMAL ART SCHOOL.

*Resolved*, That the State Board of Education be authorized to lease suitable accommodations for the use of the State Normal Art School in the city of Boston, for a period of three years, from the first day of July, eighteen hundred and eighty, at an annual rental not exceeding four thousand five hundred dollars and taxes, *said accommodations to be in a building, or part of a building, which, with the entrance or entrances to it, shall be under the exclusive control of the officers of the school*; provided, however, that suitable accommodations, as aforesaid, cannot be secured in any building, or part of a building, belonging to the Commonwealth.

*Approved April 13, 1880.”*

The part of the above Resolve which is printed in italics

explains both the cause for removal from the old, and the condition of suitability required in the new, premises.

It was no easy matter to find a building, or part of a building, erected for another purpose, which should even approximately furnish the accommodation required in a school of art. Three features needed in it were essential; viz., *light, room, and privacy*: the first to be uninterrupted, and, as much as possible, coming from north and east; the second to be sufficient to enable each student to see objects at a proper distance; the third, such as a mixed school of two hundred adults necessitated, and to guard both studios and students from undue publicity, and intrusion from without.

The last feature was that which the legislative Resolve required, being a necessity common to all mixed schools; but the first and second were as imperatively called for in a technical school, whose studies depend upon light and trained eyesight, physically, as well as mentally.

Indeed, no building can ever be perfectly adapted to the varying requirements of a broad course of technical study in art, unless, having in clear view the whole fixed curriculum of the school's work, a structure be erected for the express purpose of providing for those requirements, in the studies of drawing, painting, sculpture, and architecture. As this was not possible at the time, the hiring of a building which should secure the most of these features was necessitated.

Having examined many which were offered for this purpose to the Board of Visitors, I reported that the Deacon House, 1679 Washington Street, was the only building that could be adapted for the use of the school, without involving great outlay; and the Board, acting on its own judgment in the matter, secured the premises on a three years' lease, dating from July 1, 1880.

The removal of the furniture and examples for study, from School Street to the Deacon House, was accomplished during the summer recess of 1880; and the fitting up and arrangement of the rooms, occupied, with the exception of one week, the whole of my vacation, as well as that of the two other general officers of the school.

In premises more than twice as large as those recently occupied, some additional apparatus and furniture have been required; and the examples for study had to be refixed and

arranged, to adapt them to new conditions. When, therefore, it is stated that the school property was removed, its furniture repaired and mostly repainted, new furniture, in part, procured, and the whole fittings and apparatus arranged,—all expenses involved by this being only \$1,793.24,—it will be seen that the greatest economy has prevailed, and the summer vacation of the school's officers not been fruitlessly sacrificed.

The citizens of Massachusetts are to be congratulated in thus securing for their sons and daughters facilities and accommodation for art study, such as has not before been available to them, and combining advantages which are essential to the highest forms of success.

The influence of these surroundings upon the work done in the new school has been remarkable, and remarked by all the instructors, as well as by myself.

With better light for the display of examples for study, more room for the students to work in, and better discipline, the works in all the classes have been on a larger and bolder scale; their technical and manipulative character has improved, and the quality of all the exercises has advanced, both artistically and intellectually. This advancement has been immediate, thus justifying the pleas which have been so frequently made in the past, for proper and school-like conveniences. It will go on, and amply repay the public spirit of the Commonwealth.

The number of individual students who have entered the school from September to Dec. 31, 1880, is two hundred and fifty. A larger proportion than before are staying for the second, third, or fourth year's course; and thus, in time, there will be produced from among them a very highly qualified and accomplished corps of educators in art, who will be able to take the direction of such schools of art, or technical schools, as will inevitably be established in every industrial and manufacturing centre before a great time has elapsed.

#### *The Work of the Normal Art School.*

It should not be out of place here to define the true position of the school among the public educational institutions of the Commonwealth, for much misunderstanding prevails concerning it. A general statement may therefore be made, which will illustrate the nature of its work.

There is, at the present time, an extended belief that the education given in the public schools, in the absence of apprenticeships to trades afterwards, is not sufficiently practical as a preparation for the actual occupation of a great majority of the scholars.

A controversy between school-men has long been waging, the subject under discussion being how to adapt the present schools to modern needs, securing thereby for the masses of the people as good a training for their work in industrial life, as the wealthier minority obtain through universities and professional schools for their occupations. Some have boldly proposed that, in every grammar and high school, manual industries shall be carried on as a part of the exercises, either general for all pupils, or elective in the upper classes of the grammar schools, and in all those of the high schools; so that in the latter, whilst boys who were going to college might study Latin and Greek or the modern languages, those who were intended for employment in the constructive industries should take up manual training in wood or metal, and such mechanical studies as would forward them in industrial occupations. Others object to thus bringing the workshop into the school, and propose the establishment of industrial schools for those pupils only, who, having passed through the grammar schools, prefer, or are obliged to take up, manual occupations, rather than prepare for professional or commercial pursuits by going through the high schools.

The weight of opinion seems to be tending towards indorsing the latter proposal, though no action appears to have been hitherto taken by any municipal body in this State to try the experiment of establishing industrial schools. Whatever should be the outcome of this discussion, it is agreed by all that the common foundation for all manual skill in the industrial and constructive arts is the ability to draw. Whether the schools are to be parcelled into part schools, part workshops, or one school is to be considered wholly a school, and another wholly a workshop, has to be decided in the future, and there are good arguments for both proposals: but in either case a practical knowledge of the elements and principles of industrial drawing would be needed; and therefore all are agreed, and it is perfectly safe to state, that drawing should be taught to all. Its value as an element of professional education has been acknowledged

also: so the basis of its usefulness is sufficiently wide and broad to cover all occupations.

The question has arrived, then, at this stage of its solution; viz., The future development of education must be in the industrial direction of practical science and practical art, on their elementary planes, at first in public schools, and subsequently upon higher planes in special schools. Until this conviction crystallizes into a plan, or attains the proportions of a practical scheme adjusted to the public-school system, it is safe for us to take the first step, recognized as such by all progressive nations, to teach industrial drawing to every child.

This principle was recognized by the Legislature of Massachusetts, when, in the year 1870, it passed the Industrial Drawing Act, requiring that in future every child in schools supported by public taxes should be taught to draw. But the only way in which this could be accomplished was by insuring that every teacher employed in the common schools should become qualified to teach drawing; and, until this was brought about, many children would be deprived of their just rights to a practical element of education, to which the law decreed them to be entitled.

The regular teachers, therefore, must be taught to draw, in order that all scholars might learn from them how to draw.

It was at this time difficult, if not impossible, to obtain trained teachers of industrial drawing, for there was then no normal art school in the United States: indeed, the very term "*industrial drawing*," as applied to education in the public schools, was hardly understood, and is not fully comprehended by the public even now.

Here the need of a normal art school became as manifest as did the necessity for the general normal schools in previous years, and thus it became established. All the teachers of drawing in the five normal schools of Massachusetts for many years past and at present have been students in the Art School; and thus a large proportion of the present regular teachers, graduates in recent years of the normal schools, have been by them prepared to teach the subject of elementary drawing, and all will be so in the future.

But a large number of teachers at present employed in the State, either passed through the normal schools before drawing was regarded as a serious study, or have never been in normal schools, or have never learned to draw. For their instruction



the State undertook to provide special teachers of industrial drawing, not to supersede them, or to do substitute work for them in their class-rooms, but to assist them, through their own instruction, to qualify themselves to teach the subject to their own pupils.

Another need for the special instructor in drawing had arisen in the free evening drawing schools, which owed their origin to the same Act of the Legislature passed in 1870.

These schools had already felt the truth, that men may be able to do well that which they cannot teach others to do well. Good draughtsmen, like good artists, may be absolutely deficient of teaching power; and few, even of those who possess it, ever care to worry patiently over the teaching of elementary principles of drawing to beginners, when the more attractive and more profitable practice of their arts is open to them. So, with no opportunity of securing the services of teachers who were also draughtsmen, the choice of school committees was limited to those who were draughtsmen without being teachers; and many full and originally prosperous classes have been sacrificed to such a necessity.

The graduates and students of the Art School will, in time, obviate this difficulty entirely, and are modifying it already; for the course of study in the school necessitates that they shall become accomplished draughtsmen, and also have some practice in teaching, whilst many by experience will also assuredly become accomplished teachers.

The special instructor thus produced, qualified by a sufficiency of knowledge and the possession of manual skill, and ready to become ripened into maturity by experience in teaching and the discharge of other general duties, will find plenty of work in every town or city.

#### *The Work of Special Instructors in Drawing.*

The existence of an agency for the creation of special instructors in drawing, and its continuance, pre-supposes that there is, and will continue to be, a demand for their services, to such an extent as will justify the continued expenditure of public money for its support. This is as capable of demonstration as is the need for existence and continuance of the other normal schools.

All who study in them cannot become teachers, — some from

want of capacity, and others because more attractive occupations draw them away; many are removed from the educational field by marriage, some by death, and a few by old age. Thus, from natural or unavoidable causes, the State educates many more than it receives back an equivalent from in teaching, by service or long continued service in the public schools. Yet who shall say that this education is thrown away upon those who do not repay in kind? and how could the State secure the service it gets from some, except by educating them and others who seek to become teachers, and show the required capacity for the task?

It is clear, therefore, that to keep up the present supply of teachers for the demand already in existence, and to raise the character of education and qualification of the teachers for the future, it is necessary that the agencies for training teachers must still be continued, or the needed supply will cease.

What is true of the normal schools generally is equally true of the Normal Art School, but applies with even more force to it, because, though it might be possible to attract to this State teachers of the general subjects trained in other States, even if the present normal schools of this State were discontinued, the same could not be said about teachers of industrial drawing, for no other State supports such a school, and there is not even a private normal school in the country which covers the whole field of industrial art education.

As some misunderstanding appears to exist concerning the proper position of and nature of the work to be done, and by a special instructor in drawing, it may be of use if this should be defined, as resulting from the best experience here and elsewhere.

During the present generation there will not be such a practical knowledge of the subject of industrial drawing, as an element in education, among the members of school committees or superintendents of schools, as they undoubtedly possess of all other elementary branches of education taught in the public schools; though the coming generations, taught in youth to draw as they were taught to write, will be as well able to manage and direct one subject as the other.

Until, however, this is the case, and in order that the instruction in drawing may not fall below the standard of instruction given in other subjects, it is but reasonable that the services

of a specialist in drawing should be required to assist in its supervision in the public day schools, primary, grammar, and high.

The most direct, efficient, and economical mode of employing this assistance is, 1st, To appoint a qualified special instructor to give courses of lessons to the regular teachers in the subjects, and following the adopted course of instruction which they are required to teach to their own pupils. 2d, To have the work that is done by the teachers and pupils in the classes inspected, examined, and reported on by the special instructor at stated intervals, the reports to be submitted to the proper authorities as often as need be.

These lessons to teachers are to be maintained until they have, by examination, proved themselves competent, by manual exercises, to give the instruction needed in the schools in all the subjects of the course, and the supervision is to be continued as long as the authorities may deem profitable. This has been proved to be the best way of introducing and sustaining the subject in the public schools, and in this instance the interests of education and economy are happily identical. By such an arrangement, one special instructor is capable of influencing and directing the study of drawing of every pupil in every class in every public school of a city of fifty thousand inhabitants, and consequently any city or town having a smaller population.

If annual or semi-annual examinations be held, either of teachers or scholars, or both, the special teacher should prepare the exercises, mark them when wrought, and report on them to the authorities, accompanied by tables of results, and the wrought papers on which they are based.

This is legitimate and proper work for a specialist in this generation. It is tentative, and will not be necessary at farthest after the close of this century; for then, all who are educated enough to be directors of general education will be able to do this work as well, for it will then no longer be special, but general.

#### *Unwise Employment of Special Instructors.*

On the other hand, it has been demonstrated by experience that there is a mischievous, extravagant, and impotent way of employing specialists in our public schools (which are not special schools), and that is to have them give the instruction

to the *pupils* in the several class-rooms, instead of the *teachers*. One specialist can, during ordinary working hours, efficiently instruct all the teachers of a city having the population I have described; and the teachers in turn may efficiently instruct all their pupils, passing on quite as much of the information and giving them as much instruction and practice as they can profit by. But how many of those pupils could the specialist teach? and how much instruction could he regularly give even that small fraction?

If all children have equal rights, and this special instruction were an advantage, then it is the right of all children, and not the privilege of a few. Were this recognized, it would involve the employment of more special instructors than at present exist, or than any sensible community would consent to pay. The question then arises, Is this special instruction in general public schools an advantage? The evidence on this point is convincing and unanswerable; and it has been accumulating on my hands in the form of work produced, 1st, By the instruction of pupils solely by regular teachers, and, 2d, By work of pupils taught entirely by special instructors, enabling us to make a fair comparison of the results in the two cases.

These results justify me in saying that the instruction in industrial drawing given by the regular teachers of the public day schools who have themselves been taught to draw, is a success; and that, broadly speaking, that which is given by special instructors in the day schools is not so successful.

There are ample explanations for this, without discrediting either the skill or the faithfulness of the specialists; and any educator who is familiar with the nature and character of children, and well informed concerning the subject of drawing, will realize how this may be.

It seems to me that a discovery based on such evidence is valuable economically and educationally. It is in opposition to the common belief, and may be questioned: and it is only in those schools or classes where the regular teacher teaches all subjects to his class of pupils that the principle applies; and it does not hold in departmental schools, where a teacher teaches one subject only to all the pupils in a school, and has no class wholly to himself.

Having previously described this result of my observation, it appears to have been misinterpreted, as being an objection on

my part to the employment of special instructors of drawing for any purpose.

How contrary this is to the actual truth may be seen when it is remembered that the Normal Art School exists to-day because I have consistently stated that competent and trained special instructors in drawing are a necessity, and that without them the whole fabric of industrial art education in this State, as elsewhere, would fall to ruins.

I have made this statement from the first moment both before and after I had seen the condition of drawing in the State in 1871, and before the school was established; have re-iterated it year after year when people who held a different opinion, have, before committees of the Legislature, assailed the Normal Art School on the ground that special teachers were not necessary; and I here re-affirm the proposition.

But there is a right way to employ specialists, in which they are necessary and profitable, and a wrong way, in which they are unnecessary and unprofitable; and it is quite a different matter to define the two conditions, which it has been and is my duty to do, from saying that specialists are everywhere unnecessary and unprofitable, for that is exactly contrary to what I have always believed and said.

In my last year's report to the Board, this matter was referred to at the end of the Appendix, called "plan and graded programme of instruction for the public schools of Massachusetts," in the following words:—

"It is but just to those special teachers of drawing, who have done much towards bringing about the possibility of such a scheme as this, to define their true position in a public-school system, their false position having been fully described. *First*, For some time yet, the highest class in high schools must be personally taught by them. *Second*, Their final work in public schools will be supervision of the work of the regular teachers in all classes, and examination of the pupils. *Third*, Normal instruction to teachers so long as it is necessary. *Fourth*, Teaching the evening drawing classes, or schools of art, as they will be eventually called.

"In such legitimate and useful work there is a wide field, every large city requiring several of such trained teachers; and every city or town will find it necessary, economical, and profitable to have one such specialist in the public employment, upon whom it can rely for guidance and service. Now that drawing is so extensively taught in the public schools, it should be taught well, and under competent supervision, and not be made the subject of experiment. Then schools of art are inevitable, and such schools are the true homes of the special teacher of drawing."



There can be no mistaking such language as this ; and the exception made, viz., that “*for some time* yet, the highest classes in high schools must be personally taught by them,” shows that such occupation in them was to be regarded as tentative, not permanent, until the high-school teachers had acquired sufficient skill to do the work. About the same time the above was written, I was called upon to report on the teaching of drawing in high schools of the city of Boston, by the regular teachers ; and, having given personal instruction to teachers from all the high schools, in the course they were to follow, by which they were fitted to give it, I reported to the Board as follows : —

“ Having had the subject under my observation from that time to this (1871 to 1880), and tested the results of examination by exercises, semi-annually, drawn in a given time by the pupils, I have no hesitation in saying that all that is worth teaching about drawing, all that can be taught to average pupils in a reasonable time, or that is worth knowing, or being able to do, when acquired, — all this has been, and is now being, taught by the majority of the teachers of the second and third high-school classes, better than it has been taught by the special teachers when they have been called upon to do the same work ; and the examination papers now in my possession prove this.

“ I do not wish either to assert or deny that this has arisen from any poor teaching on the part of the specialists, or superior teaching power on the part of the regular teachers ; but it must be accounted for somehow, because it is true, and has become demonstrated in actual experience. My explanation of it is, that it illustrates a pernicious and radically wrong principle of education ; viz., the employment of specialists to teach elementary subjects in common schools. We should recognize the principle that any subject which requires the assistance of specialists to teach it, and is thereby made into a specialty, should never be taught in common schools.

“ Special teachers should not be so employed, except as a temporary expedient, and then only for a very limited time ; and any subject which the regular teachers cannot teach ought not to be studied by the children.

“ Every educator of wide experience and practical administrative power knows this to be true about other elementary subjects of instruction ; and from an uninterrupted observation of nine years of the Boston public schools, I say that it is equally true about drawing.

“ Apart from the question of economy, which solvent people should also consider in order to remain solvent, the question of success in the work, efficiency of instruction alone, decides the matter in favor of employing only the regular teachers to do this.”

Regarding the circumstances of Boston as being somewhat exceptional, I added, —

“ That which is possible in Boston may not be equally possible elsewhere ; for it may be reasonably expected of a city, which has for many years taken



the lead in this industrial and educational matter, that it may now expect to reap the fruits of experience for which it has paid, as interest upon investment wisely made."

The school committee had already dispensed with the services of all special teachers of drawing in the high schools, and, since Sept. 1, 1880, the regular teachers have done the work. From frequent visits made to the schools since then, and having the work under my continued observation, I have no hesitation in saying that the pupils of the high schools are being taught in a better way, and are learning more of drawing, that will be useful to them in after life than at any previous period.

After a few years of experience, the instruction will be infinitely higher in aim and attainment than it ever could be under the charge of occasional visitors.

The *fourth* duty before referred to as among the work of a special instructor, viz., that of teaching the evening drawing classes, is one which is often entirely separated from the work of supervision of day schools and normal instruction to teachers, and discharged by another person.

This breaks the connection between the two branches of the system, and interferes with progressive study. However many instructors be required in the evening classes, the direction of the work should be in the hands of the supervisor of drawing in the day schools, and the course of study be arranged so as to hinge on to the place where it leaves off in the day schools, allowing some little practice for review.

Every city or town having a population of five thousand inhabitants or more, would find the employment of a special instructor for the four kinds of work described, to be sound economy, and of great advantage to the future men and women, now pupils in the schools. Now that the State has made this possible by the provision of well-trained instructors, and the salary required by them being no greater than is paid to an assistant in a high school, there should be no difficulty about having drawing taught in every city and town in the State.

There are many past and present students of the Normal Art School specially qualified to teach drawing, who are also well qualified to become teachers in other branches of education in high or grammar schools. A school committee may, by the appointment of such a teacher in the high school, thus secure instruction for the regular teachers of all grades of day schools,

and advanced teaching for the upper classes of the high school, by arranging that part of the time required for such instruction be given by the high-school teacher thus appointed.

*Grading of the Subject, and of Teacher's Certificate.*

The curriculum of studies in drawing to be pursued in the several grades of schools has been matured during recent years, so that it is possible now, and will also be profitable, to define both the grading of the subject and the character of the teachers' certificates issued by the school, corresponding to the different grades of schools and studies. There are four grades of schools and of the subject, and four grades of teachers' certificates, as follows:—

GRADE.	SCHOOLS.	Name of Teachers' Certificates.
1. First grade .	In primary and intermediate schools, three first years, age from five to eight years.	First grade certificate.
2. Second grade,	In grammar schools, six following years, age from eight to fourteen years.	Second grade certificate.
3. Third grade .	In high, evening, and normal schools, three following years, age from fourteen to seventeen years in high and evening; from seventeen to twenty in normal.	Third grade certificate.
4. Fourth grade,	In normal art school, four years' course, age from seventeen to twenty-one years.	Fourth grade certificate and diploma.

The programme of instruction according to this grading, as adopted in some of the cities and suggested for adoption in all, and the subjects of examination for teachers' certificates in each grade, are here placed in connection, to show the scope of each grade and their relationship to each other.

## FIRST OR PRIMARY GRADE.

ARRANGEMENT OF SUBJECTS FOR INSTRUCTION IN THE  
PRIMARY AND INTERMEDIATE SCHOOLS.

*Two hours per week. Four lessons, half an hour each. Pupils draw on slates and blackboard; teachers, on blackboard.*

## FIRST YEAR.

*Subjects of Lessons.*—1. Drawing from blackboard straight lines and their combinations. 2. Drawing from dictation. 3. Drawing from memory. 4. Design, or inventive drawing. One lesson in each division every week.

## SECOND YEAR.

*Card copies for each pupil.*

*Subjects of Lessons.*—1. Drawing from blackboard straight lines and curves in combination. 2. Drawing from dictation. 3. Drawing from memory. 4. Design, or inventive drawing. One lesson in each division in every week.

## THIRD YEAR.

*Pupils draw on paper and blackboard; teachers, on blackboard.*

*Subjects of Lessons.*—1. Free-hand from copies of straight-line forms during first half-year, and of curved forms in second half-year. 2. Drawing from dictation. 3. Drawing from memory. 4. Design, or inventive drawing.

*All the classes in every year.*

One-fourth of each class to draw the exercises on the blackboard at every lesson, so that each pupil shall draw on the board once a week.

TEACHER'S EXAMINATION FOR CERTIFICATES OF THE  
FIRST GRADE.

(FOR TEACHERS OF PRIMARY AND INTERMEDIATE SCHOOLS.)

## LIST OF CERTIFICATE DRAWINGS FOR PERMISSION TO BE EXAMINED.

*Instrumental Drawing.*

1. A sheet of geometrical definitions, plane and solid.
2. A sheet of blackboard and dictation exercises and elementary designs.

*Free-hand Drawing.*

3. A sheet of free-hand outline ornament from copy.
4. A sheet of model-drawing from solid.
5. A sheet of illustrations for a course of primary-school exercises for teaching drawing.
6. A sheet of botanical analysis and historic ornament.

## EXAMINATION FOR CERTIFICATE.

The above drawings having been submitted and approved, time examinations for the completion of the certificate will be held at the end of the annual session as follows :—

1. Free-hand drawing, in outline, from copy.
  2. Free-hand drawing from objects.
  3. Memory drawing of an original design.
  4. Dictation drawing.
  5. Geometrical drawing.
  6. Historical ornament.
- Thirty minutes given for each subject.
- 

## SECOND OR GRAMMAR GRADE.

### ARRANGEMENT OF SUBJECTS FOR INSTRUCTION IN THE GRAMMAR SCHOOLS.

*One hour and a half per week. Two lessons, three-quarters of an hour each. Pupils draw on paper and blackboard; teachers, on blackboard.*

#### FIRST YEAR.

*Subjects of Lessons.* — 1. Free-hand from copies. 2. Drawing from dictation. 3. Drawing from memory. 4. Design, or inventive drawing.

#### SECOND YEAR.

*Subjects of Lessons.* — 1. Free-hand from copies. 2. Drawing from dictation, and design, or inventive drawing. 3. Memory drawing. 4. Models and objects from copies and objects.

#### THIRD YEAR.

*Subjects of Lessons.* — 1. Free-hand from copies. 2. Dictation, memory, and design. 3. Model and object drawing from copies and solids. 4. Plane-geometrical drawing with compasses.

#### FOURTH YEAR.

*Subjects of Lessons.* — 1. Free-hand from copies. 2. Drawing from dictation, memory, and design, or inventive drawing. 3. Models and objects from copy and solid. 4. Plane-geometrical drawing with compasses.

#### FIFTH YEAR.

*Subjects of Lessons.* — 1. Free-hand from copies. 2. Dictation, memory, and design, or inventive drawing. 3. Models and objects from copy and solid. 4. Plane-geometrical drawing with compasses.

#### SIXTH YEAR.

*Subjects of Lessons.* — 1. Free-hand analysis of ornament and plant-form. 2. Applied design for flat surfaces. 3. Model and object drawing from solids. 4. Perspective, parallel and angular.

*All the classes in every year.*

Every pupil to draw upon the board once a week, to develop the power of making drawings on a large scale and in a free style. Dictation, memory, model from object, and designing exercises are suitable for the blackboard work.

## TEACHERS' EXAMINATION FOR CERTIFICATES OF THE SECOND GRADE.

(FOR TEACHERS OF GRAMMAR SCHOOLS.)

### LIST OF CERTIFICATE DRAWINGS FOR PERMISSION TO BE EXAMINED.

#### *Instrumental Drawing.*

1. A sheet of geometrical problems.
2. A sheet of perspective problems, — parallel and angular.
3. A sheet of blackboard and dictation exercises, and two elementary designs.

#### *Free-hand Drawing.*

4. A sheet of model-drawing, in outline, from solid.
5. A sheet of free hand, outline of ornament, from copy.
6. A sheet of botanical analysis of a plant.
7. A sheet of historical ornament in outline.
8. A sheet of two applied designs for flat surfaces.
9. A sheet of illustrations for teaching drawing in grammar schools.

#### EXAMINATION FOR CERTIFICATE.

The above drawings having been submitted and approved, time examinations for the completion of the certificate will be held at the end of the annual session as follows :—

1. Free-hand drawing, in outline, from copy.
2. Free-hand drawing from objects.
3. Memory drawings of an original design.
4. Geometrical drawing.
5. Perspective drawing.
6. Historical ornament.

Forty-five minutes given for each subject.

## THIRD OR HIGH, NORMAL, AND EVENING SCHOOL GRADE.

### ARRANGEMENT OF SUBJECTS FOR INSTRUCTION IN THE HIGH SCHOOLS.

*Two hours per week. Two lessons, one hour each. Pupils draw on paper and blackboard; teachers, on blackboard and paper.*

#### FIRST YEAR.

*Subjects of Lessons.* — 1. Perspective, parallel and angular. 2. Models and objects shaded with (*a*) point and (*b*) stump, from copies. 3. Free-hand analysis of plant-form and historical ornament. 4. Applied design.

#### SECOND YEAR.

*Subjects of Lessons.* — 1. Perspective, angular and oblique. 2. Models and objects, shaded from solid. 3. Free-hand analysis of plant-form and historical ornament. 4. Applied design.

## THIRD YEAR.

*Subjects of Lessons.* — 1. Historic ornament, in monochrome and color, from the cast and examples. 2. Light and shade, with brush, from examples, cast, and nature. 3. Color and harmony of proportions from diagrams, examples, and nature. 4. Applied design.

NOTE. — The third-grade arrangement for evening schools will be found under that division in this report (p. 220). The third-grade arrangement for normal schools is tentatively the same as for the evening schools of first year and for the high-school teachers' certificate.

TEACHERS' EXAMINATION FOR CERTIFICATES OF THE  
THIRD GRADE.

(FOR TEACHERS OF HIGH AND NORMAL SCHOOLS.)

LIST OF CERTIFICATE DRAWINGS REQUIRED FOR PERMISSION TO BE  
EXAMINED.*Instrumental Drawing.*

1. A sheet of geometrical problems.
2. A sheet of perspective, including parallel, angular, and oblique problems.
3. A sheet of machine-drawing from copies or lectures.
4. A sheet of building construction from copies or lectures.

*Free-hand Drawing.*

5. A sheet of model-drawing, in outline, from the object.
6. A sheet of two model-drawings, in crayon or pencil, shaded from the copy and object.
7. A sheet of two model-drawings, in stump, shaded from the copy and object.
8. A sheet of two model-drawings, with the brush, from the copy and object.
9. A sheet of two outline drawings from natural foliage and common objects.
10. A sheet of design, — one elementary, and one applied.
11. A sheet of botanical analysis of a plant, applied in design.
12. A sheet of analysis of three styles of historic ornament.

## EXAMINATION FOR CERTIFICATE.

The above drawings having been submitted and approved, time examinations for the completion of the certificate will be held at the end of the annual session as follows: —

1. Perspective practice (one hour).
2. Perspective theory (one hour).
3. Model-drawing, shaded from solid (one hour).
4. Harmony of color (one hour).
5. Memory drawing (one hour).
6. Historical ornament (one hour).
7. Machine-drawing (one hour).
8. Building construction (one hour).

## IN ALL THE GRADES.

The drawings are to be made on half-imperial sheets of paper, or mounted on that size (fifteen inches by twelve and one-half inches); and the short



edge of the paper is to be uppermost. Every sheet to be headed and numbered, according to grade, number, and subject, in printed characters, signed and dated, with the name of the school where the teacher is employed. Accepted works will be initialled by the director of the Normal Art School when approved.

## FOURTH OR SCHOOLS OF ART AND SCIENCE GRADE.

ARRANGEMENT OF THE FOUR YEARS' COURSE OF STUDY IN  
THE STATE NORMAL ART SCHOOL OF MASSACHUSETTS WITH  
SUBJECTS OF EXAMINATION FOR THE CERTIFICATES AND  
DIPLOMA.

### FIRST YEAR'S COURSE.

FOR CLASS A. CERTIFICATE A. (*Fourth Grade.*)

#### ELEMENTARY DRAWING.

##### DIARY OF STUDIES.

Days.	Hours.	Subjects of Instruction.
Monday . .	9 to 12½ 12½ to 1 2 to 4	Drawing — Free-hand Certificate Works. Lecture — Color. Lecture — Model-Drawing.
Tuesday . .	9 to 11  11 to 1 2 to 3 3 to 4	Lecture — Isometric Projection and Projection of Shadows. Lecture — Perspective. Lecture — Geometry. Normal Instruction.
Wednesday .	9 to 12 12 to 1  2 to 4	Drawing — Free-hand Certificate Works. Lecture — Historic Ornament, Botanical Analysis and Design. Drawing — Free-hand Certificate Works.
Thursday . .	9 to 11 11 to 1 2 to 4	Lecture — Orthographic Projection. Lecture — Machine-Drawing. Lecture — Building Construction.
Friday . .	9 to 1 2 to 4	Drawing — Certificate Works. Time-Sketches and Test Examinations.

##### TIME-SKETCHES AND TEST EXAMINATIONS.

Unless an average of fifty per cent of marks in each subject is obtained, the student will be ineligible for the certificate examination. The records of these examinations will be kept, and, along with the results of the certificate examinations, be open to those who are consulting the records to see the standing of each student when making inquiries for teachers.

LIST OF CERTIFICATE DRAWINGS. (TO BE DONE DURING THE COURSE OF STUDY, AND HANDED IN FOR PERMISSION TO BE EXAMINED.)

*Instrumental Drawing.*

1. A sheet of geometrical problems.
2. A sheet of perspective problems.
3. A sheet of orthographic projection.
4. A sheet of machine-drawing.
5. A sheet of details of building construction.
6. A sheet of isometric projection.
7. A sheet of projection of shadows.

*Free-hand Drawing.*

8. A sheet of model-drawing in pencil outline.
9. A sheet of model-drawing, shaded in chalk.
10. A sheet of model-drawing, shaded in sepia, India ink, or neutral tint.
11. A sheet of model-drawing, rubbed or stumped.
12. An outline-drawing of ornament, from the cast, in pencil.
13. An outline-drawing of foliage from nature.
14. An outline-drawing of the human figure from the flat.
15. An outline-drawing of animal form from the cast.
16. An outline-drawing of a piece of furniture, chair, table, &c.
17. A shaded drawing, in chalk, with point or stump, of ornament, from the cast.
18. A shaded drawing, in sepia or India ink, from the cast.
19. An original design, to fill a geometric form, from a plant.
20. A design for one of the six subjects given below.
21. Specimen lessons in blackboard drawing and dictation drawing.
22. A painting, in water-color, of a flower, from copy.
23. Analysis of styles of historical ornament.
24. Botanical analysis of a plant, for the purpose of design, and four designs from it.

*Design for Flat Surface.*

1. Design for encaustic tile.
2. Design for a book-cover.
3. Design for a cotton print.
4. Design for an oil-cloth.
5. Design for a wall-paper.
6. Design for lace or porcelain.

The elementary design is to be made during the first, and the applied design during the second, term.

EXAMINATION FOR CERTIFICATE.

The above drawings having been submitted and approved, time examinations for the completion of the certificate will be held at the end of the annual session in the following subjects:—

1. Plane geometrical drawing.
2. Perspective practice.
3. Perspective theory.
4. Orthographic projection.
5. Machine-drawing.
6. Isometric projection and projection of shadows.
7. Building construction.
8. Model drawing from solid.
9. Drawing from memory.
10. Drawing from dictation.
11. Historical ornament.
12. Harmony of color.

## SECOND YEAR'S COURSE.

FOR CLASS B. CERTIFICATE B. (*Fourth Grade.*)

FORM, COLOR, AND INDUSTRIAL DESIGN.

## DIARY OF STUDIES.

Days.	Hours.	Subjects of Instruction.
Monday . .	9 to 1 2 to 4	Painting — Certificate Works. Painting — Certificate Works.
Tuesday . .	9 to 1 2 to 4	Painting — Certificate Works. Time-Sketch — Water-Color and Light and Shade.
Wednesday .	9 to 12 12 to 1 2 to 4	Painting — Certificate Works, Oil. Lecture — Perspective. Lectures — Historic Schools of Painting, Color, and Harmony, &c.
Thursday . .	9 to 1 2 to 4	Painting — Certificate Works. Lecture — Anatomy and Human Figure.
Friday . .	9 to 1 2 to 4	Painting — Certificate Works, Oil. Time-Sketch in Oil.

The two time-sketches made each week are to be submitted to the principal every Friday, and will be marked by him. Unless an average of fifty per cent of marks per week for twenty-five weeks is obtained, the student will be ineligible for the final examination for certificate. The records of these examinations will be kept, and, along with the results of the certificate examinations, be open to those who are consulting the records to see the standing of each student when making inquiries for teachers.

## PAINTING.

LIST OF CERTIFICATE WORKS. (TO BE DONE DURING THE COURSE OF STUDY, AND HANDED IN FOR PERMISSION TO BE EXAMINED.)

*Painting in Water-Colors.*

1. Flower and foliage, from nature, without background.
2. Fruit and still life, from nature, with background.
3. Landscape painting, from an approved example.
4. Head from nature.

*Drawings.*

5. Monochrome study of antique figure, from cast.
6. Skeleton of same.
7. Muscles of same.
8. Study from the living model.
9. Perspective. Shadows, reflections, and aerial, — three examples on one sheet.

*Painting in Tempera.*

10. Study of ornament or arabesque, in color, from copy.

*Painting in Oil.*

11. Study in monochrome from cast of human figure.
12. Group, as a study of composition and color, of objects or still life.

*Design in Color.*

1. Design for a breakfast or dinner service.
2. Design for a table-cloth or window-curtain.
3. Design for a wall or ceiling decoration, fresco or paper-hanging.
4. Design for a lace curtain.
5. Design for a carpet or drugget.
6. Design for a certificate or diploma.

The student is to produce two designs selected from the above list, one of which will be retained by the school, in addition to one certificate work. One design is to be executed in each term.

All certificate works to be on imperial sheets or canvas.

## EXAMINATION FOR CERTIFICATE.

*Practice.*

1. Time-sketch, in oil, of a group, objects, and still life. Four hours.
2. Time-sketch, in water-colors, of a head from living model. Four hours.
3. Time-sketch, in light and shade, of a cast of ornament. Three hours.

*Theory.*

4. Paper on the harmony of color, illustrated by sketches. One hour.
5. Paper on the origin and chemistry of colors. One hour.
6. Paper on the technical terms used in painting. One hour.
7. Paper on the application of ornament to industrial purposes. Two hours.
8. Paper on the principles and styles of the historic schools of painting. Two hours.
9. Drawing of the bones and muscles of an antique figure, in pencil, to fill an outline given to the student. Four hours.
10. Perspective, aerial, shadows and reflections. Three hours.
11. Principles of design, applied to surface decoration (walls, ceilings, floors), fabrics (printed, woven, dyed). Two hours.
12. Description of lithography, wood-engraving, etching, steel-engraving, porcelain-painting, lace-making by hand and machine, fresco-painting, mosaic work in glass and stone, inlays, glass staining and painting, encaustic tile, stencilling, Palissy ware, majolica, della robbia ware, Wedgewood ware. Four hours.

## THIRD YEAR'S COURSE.

FOR CLASS C. CERTIFICATE C. (*Fourth Grade.*)

THE CONSTRUCTIVE ARTS. (*Architectural Design. Machine-Drawing, Construction, and Design. Descriptive Geometry. Topographical Drawing and Ship-Draughting.*)

## DIARY OF STUDIES.

Days.	Hours.	Subjects of Instruction.
Monday . .	9 to 4	Class Work — Building Construction.
Tuesday . .	9 to 1	Lecture — Descriptive Geometry, Topographical Drawing, and Ship-Draughting.
	2 to 4	Class Work.
Wednesday . .	9 to 4	Class Work.
Thursday . .	9 to 1	Lecture — Machine-Drawing, &c.
	2 to 4	Class Work.
Friday . .	9 to 1	Lecture — Building Construction.
	2 to 4	Lecture — Architectural Design.

Test examinations will be held on the first Monday in each month. Unless an average of fifty per cent of marks is obtained in each subject, the student will be ineligible for the certificate examination. The records of these examinations will be kept, and, along with the results of the certificate examinations, be open to those who are consulting the records to see the standing of each student when making inquiries for teachers.

LIST OF CERTIFICATE WORKS. (TO BE EXECUTED DURING THE COURSE OF STUDY, AND HANDED IN FOR PERMISSION TO BE EXAMINED.)

(All drawings to be on Imperial paper, 29½ by 21½ inches.)

## ARCHITECTURAL DESIGN AND BUILDING CONSTRUCTION.

1. Design for a house or public building, showing plans, elevations, sections, and perspective, on one sheet.
2. Structural details, on an enlarged scale, of floors, windows, roof, and staircase, of the first subject.
3. Monograph of the three ancient, or three mediæval, or three modern, styles of architecture and ornament.
4. Drawing of a building to scale from actual measurement of the structure; plans and two geometric elevations.

*Machine-Drawing. Construction and Design.*

5. Sheet of screws, plans, and elevations.
6. Sheet of wheels, spur, bevel, cams, eccentrics, gearing.

7. Plan, elevation, and section of a locomotive or stationary engine, from copy.
8. Drawing from the actual object, as a drill, pump, or any other machine. Two views.

*Descriptive Geometry and Topographical Drawing.*

9. Sheet of illustrations, in outline, from lectures on descriptive geometry. Development of surfaces.
10. Sheet of intersections of solids and projection of shadows ; tinted.
11. Ship-draughting. Two views and section of a boat or ship.
12. Topographical drawing of an estate from actual survey, or from data given ; colored, and buildings sketched in outline.

DESIGNS FOR ORNAMENTATION OF BUILDINGS.

1. Design for sculptured ornament in stone or marble, or enriched moulding or frieze.
2. Design for an encaustic tile pavement for hall or passage.
3. Design for an open fireplace or mantel, using tiles.
4. Design for a stained-glass window.
5. Design for a cresting for a roof in metal or terra-cotta.
6. Design for a mosaic panel, or inlay, or marquetric.

The student is to produce three designs selected from the above list, one of which will be retained by the school, in addition to one certificate work. Two designs are to be executed during the first term, and one during the second. They are to be on imperial sheets.

EXAMINATION FOR CERTIFICATE.

*Architectural Design.*

1. Paper on the styles of architecture and ornament illustrated in the monograph. Four hours.
2. Paper on building construction in the several materials used. Three hours.
3. Design for a building in the style employed for the certificate work, complying with given conditions. Sketches required. Six hours.
4. Design for details of ornament. Three hours.

*Machine-Drawing.*

5. Paper on details of machinery. Six hours.
6. Drawing from an actual machine to scale, placed in the examination-room. Six hours.

*Topography, Descriptive Geometry, and Ship-Draughting.*

7. Paper on solid geometry. Six hours.
8. Survey of an estate. Six hours.
9. Drawing from memory of the ship-draughting certificate work. Six hours.



## FOURTH YEAR'S COURSE.

FOR CLASS D. CERTIFICATE D. (*Fourth Grade.*)

## SCULPTURE AND DESIGN IN THE ROUND.—MODELLING AND CASTING.

## DIARY OF STUDIES.

Days.	Hours.	Subjects of Instruction.
Monday . .	9 to 1 2 to 4	Modelling — Ornament, or Human Figure. Modelling — Ornament, or Human Figure.
Tuesday . .	9 to 1 2 to 4	Modelling — Class Work. Time-Sketch — Light and Shade, in Life Class-Room.
Wednesday .	9 to 1 2 to 4	Modelling — Class Work. Modelling — Class Work.
Thursday . .	9 to 1 2 to 4	Modelling — Class Work. Anatomy and Human Figure in Light and Shade, in Life Class-Room.
Friday . .	9 to 1 2 to 4	Modelling — Class Work. Time-Sketch in Clay.

The two time-sketches made each week are to be submitted to the principal every Friday, and will be marked by him. Unless an average of fifty per cent of marks per week for twenty-five weeks is obtained, the student will be ineligible for the final examination for certificate. Time-sketches on a flat surface to be of uniform half-imperial size, and, if in the round, to be fourteen inches in height. All to be signed and dated. The records of these examinations will be kept, and, along with the results of the certificate examinations, be open to those who are consulting the records to see the standing of each student when making inquiries for teachers.

## LIST OF CERTIFICATE WORKS. (TO BE EXECUTED DURING THE COURSE OF STUDY, FOR PERMISSION TO BE EXAMINED.)

[All works to be of imperial or half imperial size, or to be in the round.]

*Ornament and Animal Form.*

1. Historical ornament in one style from the cast.
2. Study of ornament from flat copy.
3. A design for a capital, spandrel, panel, rosette, or enriched moulding, executed the full size, for stone, wood, iron, or terra-cotta.
4. Model of flowers, or foliage, from nature, in relief, or statuette of an animal, or an animal in relief.

*Human Figure.*

Portrait head from nature, life-size, in the round or relief.

Bas-relief from antique figure in the round.

7. Anatomical rendering of an antique figure.
8. Model in relief from a print or drawing of a human figure or head.
9. Bust, life-size, from the antique.
10. Study from the life, in relief or the round, of the whole figure.

*Casts.*

11. Cast from nature of an arm, hand, foot, or mask.
12. Cast from nature of foliage, fruit, or flowers.
13. Casts from a piece-mould, sulphur-mould, and gelatine-mould, made by the student from his own models or selected works.

DESIGNS IN THE ROUND. DRAWINGS.

1. Design for a work in cast or wrought iron, as a grate, railing, &c.
2. Design for a piece of furniture in which wood-carving is employed.
3. Design for a sculptured ornament in stone, marble, or terra-cotta, or for a frieze.
4. Design for a centrepiece for a ceiling, to be made in plaster.
5. Design for a vase, pitcher, flagon, goblet, or tankard, in the precious metals.
6. Design for an enriched shaft of a column, or a spandrel, introducing the human or animal figure.

The student is to produce four designs selected from the above list, one of which will be retained by the school as a specimen of the student's work, in addition to the cast model. Two designs are to be executed in each term on imperial sheets.

EXAMINATION FOR CERTIFICATE.

*Theory.*

1. Paper on sculptured ornament of the Historical Schools. Three hours.
2. Paper on design applied to objects in the round; viz., plaster, terra-cotta, wood-work (constructional and sculptured), metal (cast and wrought), stone, marble, &c. Three hours.
3. Paper on anatomy of the human skeleton and muscles. Four hours.
4. Paper on sculpture of the human figure. Three hours.

*Practice.*

5. To sketch in clay a relief copy of a piece of ornament from the cast or shaded copy. Three hours. Cast of the same. Three hours.
6. To model a relief from the entire figure in the round. Four hours.
7. To model a bust or statuette from the antique or life or shaded copy. Four hours.
8. To make a charcoal sketch of a head from nature, life-size. Four hours.

NOTICE CONCERNING CERTIFICATE WORKS.

Four of the ten certificate models are to be of imperial size, or in the round; and one is to be cast by the student, and left in the school as a specimen.

The works are to be an example of bas-relief, of mezzo or mixed relief, alto-relief, or the round, one only of which, the selected work, will be required to be cast.

The Diploma of Graduation is awarded only to those students who complete the whole course; i.e., execute the certificate works and pass the certificate examinations of all the groups, A, B, C, and D, and obtain the certificate for each.

Students who come not well prepared for the work of the school are allowed to continue their studies for a second year in a class, if they have not completed the works and passed the examinations.

Graduates may enter the post-graduate course for one year, the year to be spent in review and observation of the work in all the classes, under the direction of the principal of the school.

THE  
ANNUAL EXHIBITION OF INDUSTRIAL DRAWING  
FROM  
DIFFERENT CITIES AND TOWNS.

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THE increasing interest felt in the subject of industrial drawing throughout the State has had its influence upon the larger cities, making their efforts for systematizing instruction in the day schools more methodic, and broadening the scope and subjects of study in the free evening classes for youths and adults.

In many places, regular social public exhibitions of the drawings and designs produced in the day and evening schools are annually held, kept open for several days, and largely visited by the citizens and parents of pupils.

This is as it should be, for it is the wide diffusion of public interest in the subject that will eventually give industrial drawing its true position and influence as an educational agent. An actual exhibition of work done in the public schools of a city or town, on the regular plan of instruction, consisting of class work, selected for, but not prepared for, exhibition, will do more to display the practical and industrial nature of the work, than all the verbal explanations, criticisms, or discussions, that can be offered.

Drawing appeals eventually through the eye to the understanding, and to be appreciated or understood must be seen; so for this reason, local exhibitions of drawing are precisely the best means of explaining the subject to the people.

At the same time, these local exhibitions do not serve the same purpose as the annual exhibitions in Boston of work from all the localities, and it would be still valuable if representative selections of local exhibits could be sent to the metropolis of the State every year, as in previous years, for mutual comparison and instruction by the teachers.

The influence of such a display in past years has been direct and elevating; but the number of towns and cities participating in the exhibitions, has, of late years, decreased, partly from the belief that local exhibits are sufficient, and partly, as has been alleged, from the hard times, now, happily, passing away.

I would suggest, therefore, that in future, by a co-operation as to the dates of local and general exhibits, the cities and towns should, after their local exhibitions are over, contribute a selection of their works to the State exhibition held in Boston during the month of June in each year.

The State exhibition held last June at the Normal Art School in Boston was fully attended by the public, and favorably commented upon by the press.

For purely public reasons I commend this suggestion of a full State exhibition of the works annually produced in the cities and towns, to the favorable consideration of the school authorities and officers of committees who have the control of local schools and classes. It is not an expensive contribution to the promotion of public advancement in this branch of education; and, if any city should not receive as much benefit from a common exhibit as it confers upon others by its participation, there is, as a reward, the yet higher satisfaction that the general public is benefited.

Much of the advancement in taste and skill all over the civilized world, observable in the last quarter of a century, is due directly to the influence of the great international exhibitions; and this influence has made itself felt through the education which designers and teachers have received by comparing the masterpieces of industrial design together, and by studying the systems of instruction displayed by nations whose artistic progress has been there recorded. The same results have been felt on a more limited scale in our State Exhibitions of Industrial Drawings, and will continue to be felt in a more extended manner if the exhibitions be maintained and developed.

#### FREE EVENING DRAWING CLASSES.

Though the Industrial Drawing Act of 1870 says that every city or town, having more than ten thousand inhabitants, *shall* maintain a free evening drawing class for youths above fifteen years of age, the classes seem subject to a precarious existence. A university town like Cambridge, a wealthy one like Newton,

manufacturing towns like several which could be named, occasionally allow a school-year to pass without opening the evening drawing class, although they may have the rooms fitted, and the examples and apparatus complete.

The explanation given sometimes is, that there is no penalty for a breach of the law, which hardly seems a satisfactory one to come from law-abiding people, having in charge the training of youths and children to become good citizens. There have been, doubtless, many elements of discouragement in the conduct and results obtained from these classes in the past, — the attendance of pupils irregular, the progress made, therefore, not satisfactory, and both teachers and committee have been sometimes disheartened.

Much of this friction has arisen from a cause before referred to; viz., the want of qualification of teachers: but there are others which contribute towards this unsatisfactory state of things also.

First, when drawing, in its first steps and elements, is not taught, or has not been taught for some time past in the day schools, systematically, then those who attend the evening classes will naturally be entirely unprepared for any thing but the most elementary work; and that, as a rule, is what they seldom have patience to go through. To humor them, the teacher gives them work of a more advanced kind, perhaps the copying of a piece of machinery or drawing of a house, forgetting that this is the application of drawing to a special purpose, before the beginner knows how to draw. The result is monotonously uniform: the pupil finds it impossible to do the work; he loses confidence in himself and his teacher, and gives up in despair.

Another mistake commonly made in these classes is to allot a different kind of work to each pupil, so that every one requires individual instruction upon his particular copy, to be able to do any thing at all. Now, suppose a class of sixty students to be taught by one teacher, and the lesson each evening to be of two hours' duration. That would, on such a plan, enable the teacher to give two minutes' instruction per night to each student, which is comparatively valueless; even if the class consist of thirty students only, it would give each one an average amount of instruction from the teachers of four minutes per night, which is of little more value than two minutes. The remedy for this is to have a course of class instruction laid down, through which



all beginners must go, the teacher working before the pupils on the blackboard or on cartoon paper, the whole class following step by step.

The teacher should have a large finished drawing of the exercise about to be wrought suspended within sight of the class, to show them what is going to be done, and some explanation and analysis be given of it before commencing to draw; and then he should instruct them step by step, by drawing the example before the class, which follows him as each step is taken, until the whole work is completed. A drawing thus made before the very eyes of the pupils will teach them more than a score of talks about it.

If the class should consist of sixty pupils, all of whom are listening, drawing, and following in the steps of the teacher, then a lesson of two hours so utilized will give each pupil two hours of healthy, convincing instruction, left much to himself. By the presence of the teacher on the platform, the student will not only be instructed, but educated, taught, and led, nourished and developed.

A few moments given to individual correction of errors at the end of each hour by the teacher, is all that is necessary to complete such a class lesson as is described.

The first year's instruction of a class should be wholly given in this manner upon every branch taught. Afterwards the instruction may be more individual for those only who have gone through the preliminary steps satisfactorily, though every subject coming under the name of industrial drawing may be more efficiently taught by class instruction on the same subject, than by individual teaching on different examples or copies. It is of the essence of this style of teaching that the teacher should work before the class, for though the large finished cartoon made by the teacher may convey the idea of *what has to be done*, and very clearly, yet it is the repetition of this in the order in which it was done, that will fix irrevocably in their minds, through their eyes, and its duplication by themselves with their own hands, the process of doing it, and growth which has produced the result.

Difficult or elaborate examples should not be taken for this class teaching, the idea being to teach the students *how* to draw truly and intelligently; and this can just as well be done on simple subjects as on difficult ones, oftentimes better.

*When* students know how to draw, they can draw what they like, if they choose, and the motive is sufficient.

Another cause of failure in evening classes, is that teachers sometimes *conduct* them without having a plan of instruction upon which to proceed, or, having a plan, it has been arranged to suit a theory, or to develop with hot-house rapidity some specialty in drawing, and not as the result of experience in the conduct of such classes. Either of these causes is sufficient to wreck a class, unless the theory is inspired, and inspiration is not common about such matters nowadays.

I submit to the school committees of this State and to their officers, a course of study and some regulations for the management of classes, which have been carried out elsewhere under my own supervision, and which have been adopted by the school committee of Boston, and are now in successful operation in the free evening drawing schools of that city. Such a course as this may require modifications to suit it to the circumstances of any particular locality; but it is specially designed for class instruction, and, if the teachers be competent, can be carried out to a successful issue, even when the students are beginners.

The second year's course, as will be seen, is only for those who have passed through the first year's, and should not be attempted by beginners.

I print this plan in full, because it may be of use to those who have found a difficulty in arranging one for themselves, and who might like to adopt one which has been well tried and proved to be practical.

PLAN OF INSTRUCTION IN INDUSTRIAL DRAWING  
FOR THE  
FREE EVENING DRAWING CLASSES,  
OF THE  
CITY OF BOSTON, MASS.

ARRANGED FOR A COURSE OF TWO YEARS' CLASS INSTRUCTION, BY LECTURES.

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FIRST YEAR.

Elementary and general, for all students.

SECOND YEAR.

Applied elective, in four branches. 1. Free-hand design. 2. Machine-drawing. 3. Building construction. 4. Ship-draughting.

FOR THE YEAR 1880-81.

*Contents.* — Information for students and regulations; Diary of class lectures; List of certificate work; Programme of examinations; Awards of certificates and diplomas.

Arranged by Walter Smith, director of drawing; adopted by the school committee.

INFORMATION FOR STUDENTS, AND REGULATIONS CONCERNING THE CLASSES, BOTH OF FIRST AND SECOND YEAR.

OPENING AND CLOSING OF CLASSES.

Public notice by advertisement is given in the newspapers of the opening of the classes, which will be on the first Monday in October of each year, and they close with an examination during the last week, and distribution of certificates and diplomas, on the last Wednesday in April of each year.

ADMISSION, COURSE OF STUDY, EXAMINATION.

Applicants for admission must be over fifteen years of age. For the first year's course students will be admitted without examination. Those desiring to enter the second year's course will be examined in drawing from

the object, for the free-hand course, and in plane geometry for the instrumental course. New students who have not attended the classes before 1880 will be admitted only to the first year's course. Students are required to follow the course of study for the year and division to which they belong; and no other drawings but those named in the list, and the lecture exercises, are permitted to be drawn in the classes.

The first week in each annual session will be devoted to admitting and examining the applicants for admission; the week preceding the distribution of certificates and diplomas will be devoted to the final examinations. No student will be admitted after the last meeting of the classes in October and in January.

#### TIME AND REGULARITY IN ATTENDANCE.

The classes will be open on Monday, Wednesday, and Friday evenings in each week, during the period specified above, from 7.30 to 9.30, each evening, and students must be in their places at that time, the rooms being open and teachers present at 7.15. They will be required to sign a written agreement to attend the whole session, punctually and regularly, unless prevented by sickness, or removal from the district in which the class is held, of which notice must be given to the principal or head-assistant of each school. This written agreement must be filled up and presented for admission to the classes by each student, during the first week of the annual session.

#### INSTRUMENTS.

Students requiring the loan of instruments in the second year's course must apply to the curator for them each evening between 7.15 and 7.30, so as to be in their places at 7.30.

#### DIVISION OF THE YEAR INTO TERMS — HOLIDAYS AND VACATIONS.

The year is divided into first and second terms; the first being the months of October, November, December; the second being from the beginning of January until the end of the annual session, comprising the months of January, February, March, and April. Holidays and vacations are the same as in the day schools.

#### SIZE AND NUMBER OF DRAWINGS IN EACH YEAR'S COURSE.

In the first year's course twelve drawings are required, to be made, or mounted, when done, on half-imperial sheets, fifteen by twenty-one inches.

In the second year's course eight drawings are required, made, or mounted, when done, on full imperial sheets, except in ship-draughting. One drawing from every set of works in each year will be selected and retained by the school committee, as city property, for purposes of record. No drawing is to be taken away from the school when finished, until the end of the session. Every drawing, when finished, will be initialled by the teacher of the class.

When accepted by the director of drawing, it will be stamped by him, and form one of the certificate set. Records of drawings accepted, examinations passed, and certificates awarded, will be kept by the head instructor of each class, and the general record of all the classes be preserved by the officers of the school committee, at its office.

## CONDUCT OF STUDENTS.

Every student will be furnished with a copy of this plan of instruction on admission, and is expected to read it, and to abide by all the rules and regulations herein stated, as a condition of attendance on the classes. Attendance will, therefore, be regarded as evidence of agreement to comply with the regulations, and follow the courses of instruction.

## PROGRAMME.

## DIARY OF CLASS INSTRUCTION, BY LECTURES.

## FIRST YEAR'S COURSE. — GENERAL.

DAYS.	HOURS.	SUBJECTS.	
		First Term.	Second Term.
Monday	$\left\{ \begin{array}{l} 7\frac{1}{2} \text{ to } 8\frac{1}{2} \\ 8\frac{1}{2} \text{ to } 9\frac{1}{2} \end{array} \right\}$	Geometrical Drawing . Building Construction, Model-Drawing, Out- line Copy . . .	Perspective. Machine-Drawing.
Wednesday.	$\left\{ \begin{array}{l} 7\frac{1}{2} \text{ to } 8\frac{1}{2} \\ 8\frac{1}{2} \text{ to } 9\frac{1}{2} \end{array} \right\}$	Model-Drawing, Ob- ject, Historic Ornament . Botanical Analysis .	Model-Drawing, Ob- ject shaded. Model-Drawing, Ob- ject shaded. Elementary Design. Applied Design.
Friday	$\left\{ \begin{array}{l} 7\frac{1}{2} \text{ to } 8\frac{1}{2} \\ 8\frac{1}{2} \text{ to } 9\frac{1}{2} \end{array} \right\}$		

## SECOND YEAR'S COURSE. — ELECTIVE.

*Free-hand Division.*

DAYS.	HOURS.	SUBJECTS.	
		First Term.	Second Term.
Monday	$\left\{ \begin{array}{l} 7\frac{1}{2} \text{ to } 8\frac{1}{2} \\ 8\frac{1}{2} \text{ to } 9\frac{1}{2} \end{array} \right\}$	Lectures . . .	Applied Design.
Wednesday.	$\left\{ \begin{array}{l} 7\frac{1}{2} \text{ to } 8\frac{1}{2} \\ 8\frac{1}{2} \text{ to } 9\frac{1}{2} \end{array} \right\}$	Cast-Drawing . .	“ “
Friday	$\left\{ \begin{array}{l} 7\frac{1}{2} \text{ to } 8\frac{1}{2} \\ 8\frac{1}{2} \text{ to } 9\frac{1}{2} \end{array} \right\}$	Design . . .	“ “

*Instrumental Division.*

DAYS.	HOURS.	SUBJECTS.			
		1st Term. General.		2d Term. Elective.	
Monday	$\left\{ \begin{array}{l} 7\frac{1}{2} \text{ to } 8\frac{1}{2} \\ 8\frac{1}{2} \text{ to } 9\frac{1}{2} \end{array} \right\}$	Geomet. Plane . .	Machine .	Build. Con. .	{ Ship-Draught- ing. Designs.
		“ Solid . .	Screws .	Masonry .	
Wednesday	$\left\{ \begin{array}{l} 7\frac{1}{2} \text{ to } 8\frac{1}{2} \\ 8\frac{1}{2} \text{ to } 9\frac{1}{2} \end{array} \right\}$	Isometric Proj. . .	Wheels .	Carpentry .	“
		Shadows . . .			
Friday	$\left\{ \begin{array}{l} 7\frac{1}{2} \text{ to } 8\frac{1}{2} \\ 8\frac{1}{2} \text{ to } 9\frac{1}{2} \end{array} \right\}$	Intersection Solids .	Machinery,	House . .	“
		Developm't Surfaces,			

## COURSES OF STUDY.

## FIRST YEAR'S COURSE.

INDUSTRIAL DRAWING. (*Third Grade.*)

## LIST OF DRAWINGS TO BE EXECUTED IN THE YEAR. GENERAL COURSE FOR ALL THE STUDENTS.

## INSTRUMENTAL DRAWING.

1. A sheet of geometrical problems, plane and solid.
2. A sheet of perspective problems, parallel, angular, oblique.
3. A sheet of machine-drawing from lectures.
4. A sheet of building construction from lectures.

## FREE-HAND DRAWING.

5. A sheet of model-drawing in outline from object.
6. A sheet of two model-drawings from copy and the object, shaded with pencil or crayon.
7. A sheet of two model-drawings from the copy and the object, shaded with stump.
8. A sheet of two model-drawings from copy and the object, shaded with brush.
9. A sheet of two outline-drawings from natural foliage and common objects.
10. A sheet of designs, — one elementary, one applied.
11. A sheet of botanical analysis of a plant.
12. A sheet of analysis of three styles of historic ornament.

## EXAMINATION FOR CERTIFICATE.

The above drawings having been submitted and approved, time examinations for the completion of the certificate will be held at the end of the annual session, as follows: —

1. Geometrical drawing. 2. Perspective. 3. Machine-drawing. 4. Building construction. 5. Model-drawing, point and stump. 6. Historical ornament. Memory of design.

One hour given for each subject.

## SECOND YEAR'S COURSE.

INDUSTRIAL DRAWING. (*Third Grade.*)

Students must have obtained the certificate for the first year's course, or passed the examinations.

## LIST OF DRAWINGS TO BE EXECUTED DURING THE YEAR.

## FREE-HAND DRAWING.

1. Sheet of group of geometric models and vase, shaded in any medium, point, stump, or brush from solid.



2. Sheet of historic ornament, shaded from cast, in any medium.
3. Sheet of detail, mask, bust, or extremities of human figure, in outline or shaded from copy.
4. Sheet of detail, mask, bust, or extremities of human figure, shaded from cast.

## INDUSTRIAL DESIGN.

5. Applied design for flat surface.
6. Applied design for sculptured ornament.
7. Applied design for an object and its ornament.
8. Applied design for any subject chosen by student.

## EXAMINATION FOR CERTIFICATE OR DIPLOMA.

The above drawings and designs having been submitted and approved, time examinations for the completion of the certificate or diploma will be held at the end of the annual session, as follows:—

1. Drawing in light and shade from a group of models.
2. Drawing in light and shade historic ornament from cast.
3. Drawing from memory of original design.

Two hours allowed for each exercise.

NOTE.—Students who have obtained the first year's certificate will, on completion of this year's course, and passing examination, receive a diploma.

## SECOND YEAR'S COURSE.

INDUSTRIAL DRAWING. (*Third Grade.*)

Students must have obtained the certificate for the first year's course, or passed the examination.

## LIST OF DRAWINGS TO BE EXECUTED DURING THE YEAR.

*First Term.—General.*

## INSTRUMENTAL DRAWING.

1. Sheet of plane geometrical problems, advanced subjects and curves.
2. Sheet of orthographic projection, lines, planes, and solids. Solids to have plane and curved surfaces.
3. Sheet of intersection of solids, development of surfaces, orthographic.
4. Sheet of projection of shadows, orthographic.
5. Sheet of isometric projection of solids and shadows.

*Second Term.—Elective.*

## MACHINE-DRAWING.

1. Sheet of screws.
2. Sheet of wheels.
3. Machine, from blackboard, sections and details.

## BUILDING CONSTRUCTION.

4. Sheet of masonry, brick-work.
5. Carpentry.
6. Plans, elevation of house, details.

## SHIP-DRAUGHTING.

7. Plan of boat or ship.
8. Section of boat or ship.
9. Elevation of boat or ship.

## EXAMINATION FOR CERTIFICATE OR DIPLOMA.

The above drawings and designs having been submitted and approved, time examinations for the completion of the certificate or diploma will be held at the end of the annual session, as follows:—

1. Geometrical problems, plane and solid.
2. Isometric problems and shadows.
3. Machine-drawing, or building construction, or ship-draughting.

Two hours allowed for each exercise.

NOTE.—Students who have obtained the first year's certificate will, on completion of this year's work, and passing the examination, receive the diploma.

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RECAPITULATION AND CONCLUSION.

In submitting these arrangements and programmes of instruction in drawing for the several grades of public schools in the State, to the consideration of the Board, I have felt the responsibility of the task, and based my suggestions upon records and experience that have been developed by actual work in the class-room, and the results arising therefrom.

It has taken several years of time and much observation to gradually unfold and develop the scheme of industrial art education for the schools of all grades, which is now in operation in Massachusetts. Its application is practical, though not yet general, in all parts of the State; for local option and opinion control education in this as in other subjects. But the public opinion concerning drawing has much changed during the past decade; and the subject is both better understood, and more generally taught now, than it has ever been before.

The chain of separate links, showing the work from the lowest class in the primary schools to the highest graduating class in the Normal Art School, is now complete, and in this report it may be seen in its connection and completeness at once a record and a chart. The agencies at work to carry out this plan are as follows:—

1. The Normal Art School for training special instructors.
2. The normal schools and the normal classes in cities and towns, for the instruction of regular teachers.

3. The free evening drawing schools for the instruction of mechanics and of teachers.

4. The public day schools for instruction of children.

The steady working of these agencies, each having its distinct stage of the work, though closely related to the rest by being a link in the same chain, and having a common purpose with them, must in time affect the education of every person in the State. Indeed, this time is rapidly approaching. Industrial taste has been elevated during recent years to an extent that is both astonishing in some directions, and observable on all sides; and no other influence could have been powerful enough to accomplish this, even if it had initiated the improvement, unarrested by the cultivation of taste in the public schools. The same results have followed the employment of similar agencies in other countries; and the success which our scheme of instruction has already attained, has already attracted the attention and been recognized by the most competent authorities in other lands.

There have been many difficulties and antagonisms to encounter in the development of this scheme. At the beginning, the action of the State Board of Education was criticised because it was in advance of public opinion, which had not then considered, and did not understand, the commercial and mental value of drawing as an element of education.

This want of appreciation on the part of the public is rapidly passing, even if it has not already passed, away. There are indications that, in the future, drawing will not suffer for lack of interest or appreciation; and it is because of this awakened interest that the time has seemed opportune to me to place in a connected and permanent form before the public, and those who are responsible for its direction, a record of the programme upon which drawing may be successfully pursued in the future.

The programme itself is but the accumulated record of our experience in the past.

Respectfully submitted.

WALTER SMITH,  
*State Director of Art Education.*

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E.

OPINIONS CONCERNING THE PRESENT CON-  
DITION OF THE SCHOOLS.

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# OPINIONS CONCERNING THE PRESENT CONDITION OF THE SCHOOLS.

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BY MISS LUCRETIA CROCKER

*Of the Boston Board of Supervisors.*

ROOMS OF THE SCHOOL COMMITTEE, MASON STREET,  
Jan. 1, 1881.

HON. JOHN W. DICKINSON.

*Dear Sir,* — Prominent among “the chief defects in our system of public education” in *large cities*, and the “changes” needed there, though differing from the defects which are generally found in the towns and villages, are the following:—

1st, The scholars are treated too much “*en masse*,” because of the large number of pupils to a teacher.

2d, Too much time and effort are given to secure results which are not valuable either educationally or practically.

3d, Too much time is spent in mere manipulation and organization, as if order and system were the end in view, and not the means to an end.

4th, Too frequent sacrifice of the *proper progress* of pupils through a course of study (presumably arranged to secure natural development and educational results in its successive stages) in order to equalize numbers in the different grades. This is a disadvantage alike to the bright, ambitious pupils, and to the slow but faithful pupils. The former are forced up, to fill vacancies in higher grades, by skipping portions of the regular course of study, which are essential to good progress in higher classes. The latter become duller and often disheartened by too much repetition. They take the routine over again with newly promoted pupils, after all the charm of novelty, so essential to children, has gone. They are often neglected; because the teacher must be occupied, either in preparing the quick scholars for an extra promotion, or in helping those who are victims of such promotion to supply their lost links.

5th, Too frequent change of teachers, and consequent loss of moral influence over pupils and of that perception of their individual needs and peculiarities which makes discipline easy and natural.

6th, Too much reliance upon artificial spurs to study. As is the teacher, so is the school. Where the teacher stimulates ambition to excel others, to get the “*highest per cent*,” to be “number one,” to sit in the “first row,” to get “an extra” by a bright remark,—this will be the ruling motive of



the class. Love of knowledge, and real interest in getting it, will be secondary; and, beside, there will always be a "last row" of dolts; or, sadder still, of hopeless, discouraged children.

7th, Passing from defects to remedies, it is important to secure,—

(a) The greatest simplicity of organization which is consistent with the orderly conduct and movement of large numbers.

(b) Such arrangement of the several classes of a graded school as shall give all pupils the benefit of at least one year's instruction under one teacher, and regular progress through the grades; permitting, in exceptional cases only, either extra promotions of pupils, or their retention on the work of any class longer than the time assigned in the course of study.

(c) That accuracy of knowledge, breadth of culture, and professional training, which, added to native teaching ability, sympathy with children, and enthusiasm for the work, make "the ideal teacher" quick to perceive and to respond to the varying needs of pupils, whether physical, intellectual, or moral.

When the demand for such teachers is made and met throughout the State, all needed reforms in the system of public instruction will follow.

(d) A system of State supervision would be very effective in promoting the cause of popular education.

Yours very respectfully,

LUCRETIA CROCKER.

SPRINGFIELD, Sept. 29, 1880.

*My dear Sir,*—Your questions are important, but they are too large for me. That something is wrong, I am sure; just what it is, I do not know.

I am pretty sure, however, that our school system is defective in its excess. It tries to do too much. I have grave doubts about high schools; and I think that the grammar schools would be more successful if they covered less ground and did their work more thoroughly.

Very truly yours,

WASHINGTON GLADDEN.

I have asked the publisher to send you an old number of "Good Company," in which I tried to answer, in an imperfect way, the questions of your letter.

The article to which Mr. Gladden refers, is entitled "Is this Flat Treason?" and may be found on p. 375 of vol. iv. of "Good Company." It refers to the complaints that have been made relative to the school system, and says,—

"The thing to be desired is that this public-school system should be made more simple and less pretentious; that it should teach fewer branches, and not undertake to cover the cosmos with its courses; that it should teach what it does teach with vastly less of minute detail; that it should carefully study, instead of contemptuously disregarding, the health of the pupils; and

that it should keep constantly in view the fact that four-fifths of the scholars in its highest departments must earn their livelihood in industrial rather than in professional pursuits.

“The fact is, that our present highly organized school system does not do its work so effectually as it was done by the much simpler machinery of an earlier day. The old-fashioned district school, not uniformly but often, gave its pupils a better education than the modern graded school gives them, and always gave it in much less time, and with much less strain upon the health. We remember one country school of twenty-five years ago, in which boys of sixteen, who after their tenth or twelfth year had only attended school four months in the year, had finished, and thoroughly finished, Arithmetic (‘Adams’s’ and ‘Thompson’s Higher’), Geography, ‘Brown’s Grammar’ (and a better grammar than Gould Brown’s has not yet been invented), ‘Thompson’s Day’s Algebra,’ ‘Parker’s Philosophy,’ and Mitchell’s School Astronomy,’ with a careful drill in reading and spelling and writing, and considerable practice in English composition and declamation. Results as satisfactory as these are rarely gained by the modern graded school, though it imposes upon its pupils a much heavier burden of labor and restraint and vexation than the pupils of this old country school ever had to carry. The men and women who are now from forty to sixty years of age, gained in their childhood an education that was worth for all the purposes of life just as much as that which the children are gaining in the schools of to-day, and got it in half the time, and with much less damage to their health.”

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BY COL. THOMAS WENTWORTH HIGGINSON.

CAMBRIDGE, MASS., Oct. 1, 1880.

Hon. J. W. DICKINSON, *Secretary Board of Education.*

Dear Sir, — In answer to your inquiry of Sept. 20, I have the honor to say, —

The ordinary charge made against our public-school system by critics, viz., that it is impractical, and does not prepare pupils for the ordinary duties of life, appears to me quite unfounded. I think, after a great deal of experience on school committees in different towns and cities, that our system, on the whole, works well, and needs only to be sustained and developed.

The high-school system seems to me especially important, as the high-school examinations give the tone to the whole school system of a town or city, and as the presence of the more highly educated teachers of the high school is a great assistance to the others.

The chief defect of our school system seems to me to lie in an excess of routine and technicality, — a thing very difficult to remove in a highly graded system. All school systems bring their own evils; for instance, gradation is essential, but it is then necessary to find means to remove the evil of formalism which springs from gradation. Again, written examinations, now so generally introduced, are of great value; but, having introduced them,

we have now to guard against their excess. An exclusive use of written examinations tends to reduce all instruction to mere question and answer; teachers become mere examiners, and school-books mere means of unintelligent cramming.

I can see no remedy in legislation or organization, but only in elevating the *standard* of teaching and of school inspection. This can only be done by patient inculcation of higher views of teaching, and especially this theory, always urged by Horace Mann, *that instruction can and should be made attractive*. There still exists a feeling of hopelessness in this direction which weighs down our school system. The maxim that "there is no royal road to knowledge," if it means any thing, is disproved by every day of a child's life, since the same child who finds difficulties in all school work will learn almost without effort a difficult and complicated game. The love of fictitious reading, with which children are reproached, is really a reproach upon those who teach them or write for them, and who have not yet learned to make truth as interesting as fiction. This want of faith, or of skill, runs through all our teaching; but it is felt more in public schools than in private, because the public schools are conducted on a scale so much larger, and therefore need so much more machinery. But the only remedy, in my judgment, is in having better teachers, better superintendence, and better school committees.

I have, however, little faith in any plan yet suggested for further county or State superintendence. The county system grew up in States where the county was the unit. Here, where the best towns have town superintendence, it would be difficult to organize a superintendence which should reach the poorer towns and pass by the better ones. The very fact that towns have no superintendent of their own, will make them indifferent or hostile as to the efforts of a county superintendent; while, if he does his work well enough to overcome this prejudice, there is danger lest the towns which have a superintendent of their own should dismiss him and rely only on the county officer.

In regard to the qualifications of teachers, it seems to me that we fail to get the full result from our normal schools, partly because of the imperfect preparation of their pupils. The true function of a normal school seems to me that of supplement to the high-school system, instead of substitute for it; and yet, for many pupils, it represents only the substitute.

Another way of elevating the standard of teaching would be, in my judgment, the election of teachers for a longer period than one year. An effort was made to secure the passage through the Legislature last winter of a bill permitting this. I had the honor to urge this bill; but it was defeated, mainly because there was no pressure for it from teachers themselves.

I am very respectfully yours,

THOS. WENTWORTH HIGGINSON.

BY ALEXANDER HYDE.

LEE, MASS., Dec. 20, 1880.

J. W. DICKINSON, Esq.

*Dear Sir,* — Your favor of the 9th inst. received, asking the following questions: —

1st, “What, in your estimation, are the chief defects in our common schools?”

2d, “What means would you suggest for remedying these defects?”

Since the reception of your letter, I have had little time to consider these questions; but I have not given the best energies of my life to teaching, and to the care of schools as committee-man, without making our public-school system a study. While my faith in this system has steadily increased by long and intimate acquaintance with its workings and practical results, and has not been in the least shaken by the recent attacks upon it by Mr. Grant White and others, still, like every thing human, it is not perfect, and is susceptible of improvement. Fully believing, therefore, that our public schools have proved themselves to be the palladium of our liberties, and that the success of our experiment in government by the people and for the people is due to the education which the masses have received in these schools, still it has long seemed to me that they were chiefly defective in making intellectual culture the too prominent end of education. To this one point I will confine my remarks, as it is fundamentally important that teachers, parents, and pupils should understand that the development of manhood — Christian manhood, if you please — is the great object for which our school system was established; and if this is fully comprehended, and the schools are managed with reference to this end, most, if not all, the minor evils of which complaint is made will be rectified.

Man has a threefold nature, — physical, intellectual, and moral, rising in importance in the order named; and if education is the harmonious development of the whole man, as I contend it is, then it seems to me that the physical and moral natures have not received their proportionate share of attention from the mass of our educators. The neglect of physical culture is seen in crowding too many children into a limited space, thus depriving them of suitable air for breathing. In one instance that came under my observation, a school, averaging an attendance of sixty, occupied a room thirty feet long by twenty-five feet wide and eleven feet high, allowing only a hundred and thirty-seven cubic feet for each scholar. Another school in the same town fared still worse, as each pupil was limited to a hundred and thirteen cubic feet of air. Now, if the medical experts are correct in saying that the minimum allowance for each pupil is two hundred cubic feet of air, then there are gross violations of school hygiene. A more common neglect of hygienic law in our schoolrooms is seen in the absence of any system of ventilation, and the miserable substitutes for such a system which teachers are compelled to adopt, such as opening doors, letting down windows, thus permitting draughts of cold air to come directly upon the overheated pupils. Another neglect of physical culture is the confining of small children for too long a time daily in close rooms. To compel children from six to ten years old to sit in a schoolroom six hours each day, many of them



with nothing to do most of this time except to fold their arms, must make the school seem like purgatory to them. Men can endure to have their feet fastened in stocks better than these little folks can to sit still and upright six hours in a day. Motion is as natural to a child as it is to the air, and it is essential to the development of his physical system. Older pupils can endure the confinement better; but in too many instances their minds are stimulated to such a degree of intensity that their blood rushes to their heads, their faces are flushed, and incurable disease is fastened upon them before their parents or teachers have any suspicion of what is the cause of the trouble. It is never worth while to put more machinery into a building than it is capable of supporting. Ruin of both building and machinery must ensue. In the higher grades of schools this evil is more manifest than in the lower. There are other directions in which this neglect of physical culture is apparent; but these are sufficient to establish the position that intellectual culture is so prominent an end with most educators, that they neglect the physical development of their pupils.

In the cultivation of the higher moral nature, the neglect may not be so apparent: still the moral sense of pupils does not seem to me to receive such a share of attention in our schools as its importance demands. Many teachers act as though they did not consider it their duty to teach morals. Some, when reminded of this duty, have plainly said that "morals should be taught at home : children go to school to learn to read and spell, to study art and science, not the principles of morality." They thus show their ignorance of the constitutional and statute law of Massachusetts; for the Constitution expressly says, that, whereas "wisdom and knowledge, as well as virtue, diffused generally among the body of the people, being necessary for the preservation of their rights and privileges, . . . it shall be the duty of legislatures and magistrates . . . to countenance and inculcate the principles of humanity and general benevolence, public and private charity, industry and frugality, honesty and punctuality in their dealings, sincerity, good humor, and all social affections, and generous sentiments among the people." In accordance with this provision of the Constitution, the general statutes of this Commonwealth direct "all instructors of youth to impress on the minds of children committed to their care and instruction the principles of piety, justice and a sacred regard to truth, love to their country, humanity and universal benevolence, sobriety, industry and frugality, chastity, moderation and temperance, and those other virtues which are the ornament of human society, and the basis upon which a republican constitution is founded." The neglect of moral culture is, therefore, in direct contravention of both the fundamental and statute laws of the State.

I am persuaded, also, that ignorance of law is not the only reason for the imperfect manner in which morals are taught in our schools. Our young teachers, especially, are negligent of their duty, and they do not seem fully to appreciate the value of moral training. Knowledge, in their estimation, is the foundation of manhood, and the great luminary which is to dispel ignorance and vice from this world. History shows that this is not the case. In no country was pure literature more cherished and respected than in Greece: still the records of the Grecian nation show that vice of every kind was rampant in that land of art and learning. The old Grecian philosophers that

have come down to posterity with most respect, are not those most famous for brilliant thought, but those whose characters were most pure and lovely. Socrates was, indeed, the foremost thinker of his age; but it is as a model of a good as well as great man that he impresses us most favorably. The truth is, that our ideal of Divinity is moulded mainly by goodness, as the very name, God, the personification of goodness, implies. The ideal of humanity ever has been, and ever will be, a well-developed man, great physically, great mentally, and great morally. Napoleon was a giant in will power and intellectual strength; but in moral sense he was a dwarf, and he is appreciated accordingly. The mind is not the standard of the man, or Byron, the most brilliant of poets, would not be neglected as he is. "With the talents of an angel a man may be a fool. Our hearts ne'er bow but to superior worth, nor ever fail of their allegiance there."

Those teachers, therefore, that labor mainly for the development of the intellect, fail in their great mission of developing manhood, and give occasion for the attacks upon our public-school system. They may make monsters; but they do not make model men nor good citizens, — do not inculcate, as the law requires and good judgment dictates, "the principles of humanity and general benevolence, . . . good humor, and all social affections and generous sentiments."

In this direction I think the great defect of our public-school system lies. Suggesting the defect also implies the remedy. Only teachers of well-developed character should be selected to instruct in our schools. Children almost instinctively mould themselves after the model of their teachers. If these are true, noble, generous, benevolent, patient, and self-sacrificing, possessing also native strength of will and mind combined with intellectual culture, they will command the respect and obedience of their pupils without the aid of the birch, and will effectually put an end to the charge that our public-school system is a failure.

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BY WILLIAM H. LADD,  
*Principal of Chauncy-Hall School.*

CHAUNCY-HALL SCHOOL, BOSTON, Oct. 28, 1880.

HON. J. W. DICKINSON,  
*Secretary of the Board of Education.*

Dear Sir, — Ever since your letter came to hand, I have been hoping I should have an evening in which to give full answers to the questions which you did me the honor to send me; but, as there seems no probability of any spare time for several weeks, I must limit my answers to the one point that appears to be of greatest importance.

In reply to the first question, "What are the chief defects in our system of public instruction?" I answer, —

*The most serious one is the impossibility of studying the peculiarities of each child, on account of the great number of scholars under the care of each teacher.*

Your second question is: "What change would you suggest by which the defect may be removed?"



Of course my answer would be: *Employ more teachers.*

But, as the tax-payers will not consent to do that for many years to come, the first thing is to educate the people to greater thoughtfulness in the election of school boards; so that the devoted teachers, who are giving their lives to the welfare of the Commonwealth, may not be under the control either of the enthusiast who welcomes every novelty as an improvement, or of the conservative who thinks every thing good enough as it is.

In order that the home life and school life of the children may be as much alike as possible, half of the members of every school board should be women.

Very respectfully,

Your obedient servant,

WM. H. LADD.

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BY REV. JOSEPH OSGOOD.

COHASSET, Oct. 16, 1880.

Hon. J. W. DICKINSON.

*Dear Sir,* — Your letter of Sept. 20, in which you asked two questions:—

1st, “What are the chief defects in our system of public-school instruction?”

2d, “What changes would you suggest by which the defects may be removed?” — was duly received.

I have been so engaged that I could not give time or thought to the questions proposed; and now I can give only very brief and inadequate answers, which may come to you so late as to be of no service to you.

It is needless for me to say that there are very great defects in our school system and arrangements, in the qualifications for their work, and in school supervision. Many of these defects cannot be remedied under existing conditions, or under any conditions that are likely to exist, for many years to come: others admit of a partial remedy; and others, perhaps, may be entirely removed.

First, with regard to the size and organization of schools. It is obvious that small schools should be brought together, when practicable, into larger schools, and that schools should be graded when it can be done. But I apprehend that there are two prominent defects in graded schools: one is, that often the classes are so large that they cannot be properly taught, and that therefore many individuals fail to receive the culture and training that they need and ought to have. Last summer I had two private pupils in Latin. They were from different cities, and had been trained for some time in the public schools; but they were ignorant of the common forms and elementary principles of the language. They had studied in classes, and had failed to receive the individual attention they needed.

The other defect of graded schools is the frequent abuse of the system of examinations and promotions. Boys and girls who have been associated with their classmates for years, and who have found in them their most intimate companions and friends, fail to pass the required school examinations. They consequently are unable to enter the higher schools or the

higher classes, and must go over their year's work again, which becomes uninteresting and irksome to them; they lose all heart and hope, and in many cases their school work is ended, or at least no further progress in learning is made. I am aware of the use and the need of a wise system of examinations; but I fear that the desire of teachers and school officers to have brilliant classes, and to stimulate the most quick-witted and precocious pupils to their utmost intellectual achievements, tend to produce mental and physical derangement in some, and discouragement and despair in others, all of whom a wiser and more healthy training would have better fitted for true progress, usefulness, and happiness in life. Our school education should do the utmost possible for each individual child.

The second defect to which I would refer is the want of a clear, definite, and generally received system or course of study and training in our schools. What shall children learn in the lower schools? what in the higher schools? How shall they be taught? Shall language be the leading study? Shall mathematics? Shall science? Distinguished educators give different answers to these questions, and the minds of teachers are confused. The courses of study that have been drawn up are only tentative, and cannot be implicitly adopted and followed. It seems to me that this matter needs renewed and profound attention.

The third point on which I would offer a few suggestions is the need of better teachers. After all, the more important element of success in our schools is having good teachers. It is not difficult to find teachers who can pass a good examination in the branches required to be taught in our schools. But faith in children and love for them, enthusiasm in learning and culture, and enthusiasm in the work of teaching, and a large culture, extending far above and beyond the mere school studies, are needed to give a higher character to our schools. Then I think that it would have a very beneficial effect on our schools to have a law passed requiring that all persons who shall become teachers in the public schools in Massachusetts, after the passage of the law, shall be first examined and receive certificates from some competent board of examiners. And, as an inducement to a higher culture, I would suggest that candidates be examined and receive credit for proficiency in higher branches of study, somewhat on the principle of the Cambridge examination for women.

Then it seems to me that there should be a change in the normal schools in one respect at least. Many of the teachers in those schools, I fear, have more theoretical than practical knowledge of teaching. Would it not be well to employ no teacher in the normal schools who has not had practical experience in teaching a common public school? and also for the teachers in the normal schools to teach in the public schools about one year in every five? I think this would fit them better to train teachers.

There is one defect more to which it is hardly necessary for me to allude; viz., the need of a more efficient supervision of our schools. In theory, the appointment of district supervisors, who may each take charge of the schools of several towns, may seem to be the best remedy. But the difficulty, I apprehend, would be in finding a sufficient number of men properly qualified for this work. Not only literary culture and a knowledge of the most approved methods of teaching and school management would be

necessary, but also good judgment, tact, practical sense, faith, and enthusiasm in the work, would be indispensable to success.

I have thus noted down, as I have found leisure, a few thoughts and suggestions which may be of no interest or use to you, but which will at least show my willingness to try to answer your questions. Please excuse my delay, for my time and thoughts have been more than usually occupied by other things since I received your questions.

Yours very truly,

JOS. OSGOOD.

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BY HON. JULIUS H. SEELYE,

*President of Amherst College.*

AMHERST COLLEGE, AMHERST, MASS., Oct. 8, 1880.

Mr. J. W. DICKINSON.

*Dear Sir,* — President Seelye requests me to acknowledge his receipt of yours of Sept. 25, whose answer has been delayed by his absence from home. He thinks that among the chief defects of our system of public instruction are the tendency to crowd the curriculum in our schools and colleges, and to specialize our studies too soon; but more important than all is, in his opinion, the tendency to secularize our education.

The remedy for this, he is confident, will only be secured through the careful employment of persons who are earnestly and reverently religious for our teachers.

Very truly yours,

CHAS. E. ROUNDS,

*Secretary.*

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BY DR. CHARLES O. THOMPSON,

*Principal Worcester Free Institute.*

WORCESTER FREE INSTITUTE, WORCESTER, MASS.,  
Dec. 29, 1880.

Hon. JOHN W. DICKINSON.

*My dear Sir,* — Assuming that your inquiries relate to the public-school system of Massachusetts, I reply that there are five defects which demand remedy.

1. The primaries are crowded to suffocation. It results that their work is not well done; that, in consequence, the work of the secondaries is entangled and abridged, and that the high schools do not receive properly qualified beginners.

It seems to me that every primary school in which there are more than forty pupils should be divided, the teacher taking one-half in the forenoon and the other half in the afternoon, each for three hours. It is certain that the secondaries would receive better prepared pupils than they now have, and the teacher would be left with some freedom of action. For I do not

think that the amount of money per scholar, voted annually for schools, will be much increased in the large towns and cities.

2. The course of study is overloaded. It should be essentially modified in the direction of (*a*) giving less time to some studies, (*b*) replacing some studies by others, and (*c*) putting drawing on an entirely new basis. I think that less time should be given to geography, that object-lessons in some natural-history science should replace all language and grammar lessons up to the grammar school, and that drawing should be taught in the day school only long enough to detect those pupils who have a natural aptitude for it. These pupils should thereafter be instructed in evening drawing schools by special teachers.

3. The indifference of the average citizen to the quality of the work done in the public schools, and his apparent unconsciousness of its object. That intelligent men should comment and reason, as some have done, upon the Walton report, is a much more astounding development than any thing shown in the Norfolk schools. The remedy for this is to be found in the growth of professional enthusiasm among teachers. When teachers understand and espouse their own profession, other citizens will understand it also.

4. The lack of qualified teachers. This can be remedied by keeping open to all persons the best resources we have for the higher education. The Harvard annex, the proposed normal class at Wellesley College, and similar expedients, are likely to work the needed reform; for all effective processes of regeneration in education work from above downwards.

5. The absence of any effective supervision of common schools in sparsely settled districts. So many excellent, practical suggestions have already been made, looking towards remedying this defect, that I will not add any thing.

It seems to me that the central and radical thought of any effective system of public instruction is to secure good teachers, and let them alone as much as possible.

I think that all suggestions looking towards adding any thing to the topics now embraced in the course of the public schools, is vastly unwise. It is a duty of the first importance to find out how to do better what is now done. The end of those who advocate manual labor in public schools will be gained when the pupils learn to do a few things thoroughly.

Yours truly,

CHARLES O. THOMPSON.

HON. EDWARD L. PIERCE.

The Hon. Edward L. Pierce of Milton responded by citing the following extract from his address upon "The Public and Social Duties of the College Graduate," delivered before the alumni of Brown University at Commencement, 1880.



"I venture in this presence to suggest — what may seem heresy to some — that there is a tendency in our country to overvalue what is called the 'higher education,' at least, as compared with certain homely virtues on which the family and society depend, — industry, contentment, fixedness in home and pursuit. Our high schools are multiplying the number of young men and women who turn from farm, mechanical, and domestic work, and apply for employment as clerks and scribes. The trained nurse, how hard to find! but copyists, what legions of them, of both sexes, are always waiting to serve you! Even our reform schools press their inmates to a point of intellectual excitement so far above their moral development, that, upon their discharge, they treat, as beneath them, farm or domestic drudgery. This tendency is more marked with us than in any other country. It exists, however, elsewhere, as in Greece, where the University is regarded by some as an obstacle to material progress. It results there in a dearth of men fitted for surveying, mining, road-making, bridge-building, and farming; while there is a superfluous number of lawyers, doctors, and clerks, who, having no chance of a career, become idle, restless agitators. *Are not the leaders in our educational movements responsible in some measure for that disgust with manual labor?* for that mischievous notion that it is a misfortune, even a dishonor, to have to work for one's living on the farm, in the factory, or in domestic service, which underlies the dangerous movements of our time, and finally assails social order, as in the municipal elections of San Francisco and the riots of Pittsburg? That civilization is not healthy which divorces the training of the intellect from the labor of the hands; and that personal culture is defective in which these cunning fingers, these powerful muscles, these stalwart limbs, are left altogether unexercised in productive industry. At least, as a recreation, manual labor helps to maintain the tone of the intellectual life, as eminent examples bear witness. Some of us remember Dr. Wayland, hoe in hand, crossing the college-yard of a summer morning to work in his garden, near where the Memorial Hall now stands; and the present British prime minister is said to be the best woodchopper in the three kingdoms."

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HON. JOHN D. PHILBRICK.

Hon. J. W. DICKINSON, *Secretary of Board of Education.*

*Dear Sir,* — I have the honor to acknowledge the receipt of your note informing me that the Board of Education desire to obtain my opinion upon the following questions:—

1. "What, in your opinion, are the defects in our system of public instruction?"

2. "What changes would you suggest by which the defects may be removed?"

I take the words, "our system of public instruction," in the first question, to mean the body of legal provisions for State education.

My views upon what I deem the cardinal defects in our system have

often been publicly expressed during the past twenty years. The substance of them may be found in the annual report of the Board to the Legislature, for the year 1872, which was drawn up by me, and adopted and signed by all the members of the Board.

I beg to refer the Board to that document, as it is the best statement I could now make, within the same limits, of the present defects of our State system of schools, and of the changes I have to suggest by which they may be removed. And I further ask, that, if this communication finds a place in the printed documents of the Board, the statement referred to, beginning at the *top* of page fifteen and ending with the paragraph on page twenty, be printed in connection with it as my answer to the questions submitted. I will here only summarize the heads of the four recommendations therein contained.

1. "The first and most important of the improvements referred to is that of supplementing the revenues derived from local taxation for the support of schools by a general State tax."

2. "That of providing for giving the mass of our teachers a better preparation for their work, through the instrumentality of a course of professional training in the art and mastery of teaching."

3. "The securing of a more complete attendance at school of children of school age," "by a more stringent system of compulsion."

4. "The creation of an additional superintending and inspecting agency," "occupying an intermediate position between the town's committees on the one hand, and the State supervision on the other."

On the last topic there is a pretty full abstract of a paper prepared by me in the first volume of the "Transactions of the American Social Science Association;" and my views, somewhat in detail, on the second topic, were embodied in a paper read before the National Educational Association, at its meeting in St. Louis, and is, I think, in the volume of proceedings of that meeting.

Yours very truly,

JOHN D. PHILBRICK.

DEC. 14, 1880.





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# AN ABSTRACT

OF THE SCHOOL-RETURNS MADE BY THE SCHOOL-COM-  
MITTEES OF THE SEVERAL TOWNS AND CITIES  
IN THE COMMONWEALTH, FOR THE  
SCHOOL-YEAR 1879-80.

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## BARNSTABLE COUNTY.

TOWNS.	Population—State Census, 1880.	Valuation—1880.	No. of Public Schools.	No. of persons in town May 1, 1879, between 5 and 15 years of age.	No. of persons in town May 1, 1879, between 8 and 14 years of age.	No. of different pupils in the Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average No. belonging to all the Schools.	Average attendance in all the Pub. Schools dur- ing the school-year.	The per cent of attend- ance based upon the average No. belonging.	No. of teachers required by the Public Schools.
Barnstable	4,250	\$2,526,990 00	25	684	474	787	5	108	469	736	647	.88	25
Brewster	1,144	918,804 00	7	212	133	225	4	28	127	190	170	.89	7
Chatham	2,252	598,036 00	14	430	270	489	18	68	250	412	340	.83	14
Dennis	3,290	1,075,011 00	13	590	371	671	—	120	380	539	466	.86	13
Eastham	692	202,400 00	3	145	93	153	2	13	90	143	109	.76	3
Falmouth	2,422	2,509,193 00	14	351	222	409	4	59	227	353	302	.85	15
Harwich	3,205	892,030 00	15	669	521	771	9	161	443	626	550	.88	15
Mashpee	347	112,512 00	2	45	—	63	1	5	30	63	52	.83	2
Orleans	1,294	429,503 00	8	212	122	235	1	40	125	189	166	.70	8
Provincetown	4,345	1,601,192 00	16	902	600	977	—	88	540	930	842	.86	18
Sandwich	3,544	1,371,150 00	21	596	452	720	5	91	445	703	557	.79	25
Truro	1,019	244,796 00	7	162	113	213	3	51	103	180	165	.91	7
Wellfleet	1,908	785,649 00	11	365	—	361	—	50	201	330	294	.83	11
Yarmouth	2,173	1,318,717 00	10	309	236	427	—	52	269	330	281	.85	10
Totals	31,945	\$14,585,983 00	166	5,672	3,607	6,501	52	934	3,699	5,724	4,941	.86	173

## BERKSHIRE COUNTY.

Adams	5,593	\$2,196,286 00	17	1,146	669	1,175	—	65	640	844	785	.92	19
Alford	348	259,687 00	3	64	—	82	1	14	40	53	43	.80	3

## SCHOOL-RETURNS.

iii

Becket .	1,123	355,431	00	11	269	152	263	1	30	152	200	181	-91	11
Cheshire .	1,537	739,904	00	10	308	197	368	4	29	213	287	247	-86	10
Clarksburg .	721	193,261	00	3	721	112	172	1	8	106	100	85	-85	3
Dalton .	2,022	1,519,035	00	11	354	200	385	15	7	184	335	265	-79	11
Egremont .	875	410,054	00	4	154	-	134	-	9	66	108	93	-86	4
Florida .	459	152,217	00	6	114	65	139	5	14	63	134	107	-80	6
Great Barrington .	4,658	2,801,537	00	23	815	-	760	10	104	376	661	661	-87	23
Hancock .	642	384,077	00	7	120	77	132	1	10	77	84	72	-85	12
Hinsdale .	1,595	665,826	00	10	346	241	405	9	30	233	296	269	-92	10
Lanesborough .	1,278	577,847	00	8	230	-	293	1	10	165	247	196	-79	8
Lee .	3,939	1,806,554	00	18	786	495	935	14	108	489	912	692	-76	19
Lenox .	2,043	1,222,550	00	13	416	-	420	8	19	266	365	322	-88	13
Monterey .	635	234,009	00	7	121	74	148	4	29	83	120	107	-89	7
Mt. Washington .	205	67,159	00	2	32	20	39	1	5	20	39	23	-56	2
New Ashford .	203	88,804	00	1	31	16	33	1	3	16	19	16	-83	2
New Marlborough .	1,876	634,339	00	15	407	275	500	14	30	257	392	328	-83	15
North Adams .	10,192	4,146,690	00	29	2,160	1,563	2,035	2	115	1,428	1,543	1,443	-93	34
Otis .	785	226,949	00	9	185	135	210	5	33	135	167	155	-92	20
Peru .	403	119,598	00	5	88	-	92	5	7	54	92	74	-80	5
Pittsfield .	13,367	7,414,405	00	44	2,353	1,418	2,605	28	193	1,390	1,990	1,805	-90	57
Richmond .	1,124	468,634	00	6	208	-	211	4	4	122	146	112	-76	6
Sandisfield .	1,107	385,597	00	12	223	134	231	4	36	130	191	160	-84	22
Savoy .	715	214,262	00	8	124	81	145	5	15	89	117	111	-94	8
Sheffield .	2,204	969,468	00	14	445	348	540	13	90	338	348	287	-82	14
Stockbridge .	2,380	2,177,078	00	9	352	224	365	4	40	261	316	268	-85	10
Tyringham .	542	235,350	00	3	122	68	150	5	29	68	114	63	-76	6
Washington .	492	215,331	00	6	131	67	133	6	12	67	120	77	-64	6
West Stockbridge .	1,934	702,881	00	10	454	218	477	-	38	261	390	313	-80	10
Williamstown .	3,395	1,567,062	00	14	637	542	656	3	38	542	541	508	-93	15
Windsor .	644	219,866	00	7	121	70	127	2	14	66	94	81	-86	7
Totals .	69,049	\$33,371,748	00	345	13,500	7,461	14,360	176	1,188	8,397	11,365	9,949	-87	398

## BOARD OF EDUCATION.

## BARNSTABLE COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	A'v'ge wages per month of male teachers in Public Schools.	A'v'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than six months each.	HIGH SCHOOLS.					Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length. Months.	
Barnstable . . .	5	23	9	7	\$62 50	\$32 58	204-10	8-10	—	1	2	49	Taxation,	9	\$900 00
Brewster . . .	2	5	3	1	55 00	33 00	51-10	8	1	—	—	—	—	—	—
Chatham . . .	4	14	—	—	54 00	23 33	113	8-19	1	1	1	51	Taxation,	9-5	693 75
Dennis . . .	6	9	2	2	57 50	32 50	111-10	8-15	—	1	1	53	Taxation,	9	517 00
Eastham . . .	—	5	2	1	—	30 00	25-10	8-10	—	—	—	—	—	—	—
Falmouth . . .	2	13	3	2	75 00	36 37	126	9	—	1	2	30	Part tax,	9	900 00
Harwich . . .	6	11	2	2	44 22	29 25	112-15	7-15	—	1	1	59	Taxation,	7-10	335 00
Mashpee . . .	1	1	1	—	45 85	28 00	12	6-10	—	—	—	—	—	—	—
Orleans . . .	1	8	—	—	100 00	22 85	72	9	—	1	1	62	Taxation,	9	900 00
Provincetown . . .	3	16	4	3	82 53	29 82	145-15	9-15	—	1	2	78	Taxation,	9-15	968 00
Sandwich . . .	4	24	2	1	56 00	30 00	167	8	—	1	2	64	Taxation,	10	1,100 00
Truro . . .	2	6	—	—	50 00	25 06	53	8-5	—	—	—	—	—	—	—
Wellfleet . . .	3	8	2	2	65 00	33 00	93-10	8-10	—	1	1	58	Taxation,	10	1,000 00
Yarmouth . . .	3	8	4	4	74 00	29 71	84	8-8	1	1	1	40	Part tax,	9	900 00
Totals . . .	42	151	34	26	\$63 20	\$29 64	1,372	8-5	3	10	14	544	—	—	\$8,213 75

## BERKSHIRE COUNTY — CONTINUED.

Adams . . .	4	23	4	4	\$80 75	\$38 47	152-5	8-19	—	1	3	46	Taxation,	9-15	\$1,500 00
Alford . . .	4	3	—	—	28 50	14 00	24-17	8-5	—	—	—	—	—	—	—

### SCHOOL-RETURNS.

V

[illegible]



## BOARD OF EDUCATION.

## BARNSTABLE COUNTY — CONTINUED.

TOWNS.	Amount paid for all school purposes from money raised by taxation.	Amount raised by taxes for Schools, including wages of teachers, board, fuel, care of fires and school-rooms, for the school-year 1879-80.	Expense of supervision by school-committee.	Salary of Superintendent of Public Schools.	Expense of printing reports, etc.	Expense of sundries, books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount of voluntary contributions for Public Schools.
Barnstable	\$8,428 59	\$9,000 00	\$325 00	—	\$57 00	—	\$1,700 00	—	\$707 72	—
Brewster	2,412 65	2,200 00	100 00	—	15 00	\$75 00	—	—	165 00	—
Chatham	3,295 53	2,800 00	—	\$160 00	33 00	67 47	—	\$79 60	155 46	—
Dennis	5,656 99	5,000 00	175 00	—	30 00	184 00	—	197 49	100 50	\$64 00
Eastham	1,574 00	1,000 00	—	56 00	8 00	6 00	—	400 00	168 00	—
Falmouth	5,073 54	4,900 00	219 29	—	24 50	24 83	—	—	—	—
Harwich	4,171 00	4,000 00	50 00	50 00	40 00	15 00	—	—	104 87	—
Mashpee	500 00	500 00	10 00	—	—	—	—	—	—	—
Orleans	2,768 43	2,400 00	105 00	100 00	27 15	25 28	—	—	211 00	—
Provincetown,	8,780 00	8,780 00	350 00	—	15 00	413 00	—	—	170 00	—
Sandwich	8,544 76	7,000 00	334 75	300 00	45 00	82 62	970 41	537 60	—	85 00
Truro	1,814 75	1,400 00	93 75	—	16 00	5 00	—	208 25	91 75	—
Wellfleet	4,449 77	4,200 00	125 00	—	13 00	48 22	—	50 00	199 74	—
Yarmouth	3,257 91	3,800 00	90 00	—	27 00	—	—	—	283 82	—
Totals	\$60,727 92	\$56,980 00	\$1,977 79	\$666 00	\$350 65	\$916 42	\$2,670 41	\$1,472 94	\$2,357 86	\$149 00

## BERKSHIRE COUNTY — CONTINUED.

Adams	\$9,696 49	\$8,710 53	\$100 00	\$550 00	\$15 00	\$200 00	—	—	\$120 96	—
Alford	460 00	471 00	30 00	—	—	5 00	—	—	5 00	—

## SCHOOL-RETURNS.

vii

	1,540 00	1,510 00	22 75	-	5 50	-	-	-	\$79 17	-	\$70 00
Becket .	1,540 00	1,510 00	22 75	-	5 50	-	-	-	\$79 17	-	\$70 00
Cheshire .	2,583 79	2,500 00	68 00	-	7 50	15 73	-	-	-	43 12	-
Clarksburg .	768 17	650 00	10 00	-	15 00	-	-	-	-	50 00	-
Dalton .	3,000 00	3,000 00	110 00	-	11 00	-	-	-	-	381 25	-
Egremont .	926 46	1,000 00	23 25	-	5 00	77 62	-	-	-	16 00	-
Florida .	575 00	575 00	25 00	-	7 55	39 00	-	-	-	6 00	11 50
Gt. Barrington,	7,738 00	7,500 00	158 30	-	-	200 00	-	-	-	-	-
Hancock .	643 50	500 00	43 50	-	5 00	-	-	-	100 60	-	152 50
Hinsdale .	1,991 00	1,900 00	-	-	10 00	50 00	-	-	-	30 00	-
Lanesborough,	1,551 46	1,200 00	40 00	-	7 00	1 47	-	-	20 47	-	20 00
Lee .	8,069 18	6,800 00	175 25	-	12 00	38 00	-	-	-	225 00	18 00
Lenox .	3,300 00	3,300 00	150 00	-	10 00	-	-	-	50 00	325 00	50 00
Monterey .	928 69	800 00	53 00	-	5 00	24 31	-	-	-	47 38	38 00
Mt. Wash'gton,	200 00	200 00	16 00	-	5 00	-	-	-	-	-	-
New Ashford .	93 00	93 00	15 00	-	5 00	-	-	-	-	-	-
N. Marlborough	2,713 86	2,000 00	147 25	-	10 00	-	-	-	-	-	-
North Adams,	14,972 23	13,800 00	175 00	-	-	-	\$12,000 00	-	1,060 81	511 76	-
Otis .	974 43	900 00	55 00	-	-	-	-	-	-	20 00	20 00
Peru .	707 79	500 00	18 00	-	10 50	5 00	-	-	-	-	-
Pittsfield .	31,665 89	24,750 00	284 23	-	5 50	32 66	-	-	-	1 63	-
Richmond .	823 00	800 00	22 00	800 00	165 00	406 32	8,750 00	-	1,250 00	1,595 62	-
Sandisfield .	1,255 00	1,200 00	45 10	-	10 00	13 00	-	-	-	-	30 00
Savoy .	935 00	550 00	45 00	-	8 00	5 00	-	-	30 00	150 00	215 00
Sheffield .	3,681 77	2,560 00	169 60	-	5 00	18 00	-	-	-	10 00	125 00
Stockbridge .	4,532 66	4,200 00	200 00	-	10 00	127 32	-	-	150 00	86 20	-
Tyringham .	600 00	600 00	28 00	-	35 00	409 66	-	-	-	40 43	-
Washington .	910 10	800 00	22 75	-	6 00	8 85	-	-	-	15 00	28 60
W. Stockbridge	2,557 77	2,500 00	64 75	-	5 00	62 10	-	-	365 37	-	-
Williamstown,	4,000 00	4,000 00	90 00	-	10 00	-	-	-	29 05	52 62	-
Windsor .	400 00	400 00	18 00	-	20 00	16 44	-	-	-	4 85	12 00
				-	7 25	1 00	-	-	-	-	-
Totals .	\$114,797 24	\$100,299 53	\$2,424 73	\$1,350 00	\$432 80	\$1,756 48	\$20,750 00	\$3,139 87	\$3,737 82	\$790 60	



# SCHOOL-RETURNS.

ix

Becket . . . . .	\$937 00	\$33 66	83 70	-	-	1	56	\$214 00	228 53	-
Cheshire . . . . .	-	-	86 42	-	-	-	-	-	227 93	4 61
Clarksburg . . . . .	-	-	41 86	-	-	-	-	-	217 92	-
Dalton . . . . .	-	-	-	-	-	-	-	-	187 43	-
Egremont . . . . .	-	-	45 34	-	-	1	12	30 00	214 36	29 00
Florida . . . . .	-	-	-	-	-	-	-	-	212 28	-
Great Barrington . . . . .	960 71	57 64	186 02	-	-	-	-	-	224 58	-
Hancock . . . . .	200 00	12 00	32 55	-	-	-	-	-	211 68	12 00
Hinsdale . . . . .	247 00	14 82	-	-	-	3	72	73 00	232 98	-
Lanesborough . . . . .	1,200 00	97 63	-	-	-	1	15	75 00	227 63	5 00
Lee . . . . .	1,600 00	96 00	-	-	-	1	30	700 00	229 23	25 00
Lenox . . . . .	-	-	-	-	-	-	-	-	213 17	70
Monterey . . . . .	612 01	36 72	98 80	-	-	-	-	-	204 05	-
Mt. Washington . . . . .	100 00	6 00	-	-	-	-	-	-	203 06	6 00
New Ashford . . . . .	-	-	20 83	-	-	-	-	-	242 99	-
New Marlborough, . . . . .	5,458 77	327 52	137 50	1	35	-	-	-	197 69	-
North Adams . . . . .	-	-	348 00	-	-	1	30	350 00	218 62	-
Otis . . . . .	-	-	69 87	-	-	-	-	-	209 31	-
Peru . . . . .	-	-	-	-	-	-	-	-	222 35	-
Pittsfield . . . . .	-	-	-	-	-	6	200	6,500 00	221 10	-
Richmond . . . . .	-	-	52 12	-	-	-	-	-	221 30	-
Sandisfield . . . . .	1,290 00	77 40	50 00	-	-	-	-	-	214 46	-
Savoy . . . . .	1,297 00	77 82	44 95	-	-	-	-	-	246 75	5 00
Sheffield . . . . .	1,600 00	90 00	272 33	-	-	-	-	-	187 63	-
Stockbridge . . . . .	5,250 00	400 00	141 65	-	-	2	14	2,500 00	210 99	-
Tyringham . . . . .	-	-	-	-	-	-	-	-	213 27	-
Washington . . . . .	-	-	48 83	-	-	-	-	-	241 01	43 43
West Stockbridge . . . . .	-	-	-	-	-	-	-	-	211 70	-
Williamstown . . . . .	-	-	-	-	-	2	90	4,050 00	211 09	-
Windsor . . . . .	587 95	35 27	48 00	-	-	-	-	-	-	-
Totals . . . . .	\$21,340 44	\$1,362 48	\$1,832 02	1	35	18	519	\$14,492 00	\$7,064 75	\$138 24

## BOARD OF EDUCATION.

## BRISTOL COUNTY.

TOWNS.	Population - State Census, 1880.	Valuation - 1880.	No. of Public Schools.	No. of persons in town May 1, 1879, between 5 and 15 years of age.	No. of persons in town May 1, 1879, between 8 and 14 years of age.	No. of different pupils of all ages in the Pub- lic Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average No. belonging to all the Schools.	Average attendance in all the Pub. Schools dur- ing the school-year.	The per cent of attend- ance based upon the average No. belonging.	No. of teachers required by the Public Schools.
Acushnet . . .	1,105	\$582,000 00	6	204	127	217	5	27	127	170	147	.86	6
Attleborough . . .	11,111	4,450,923 00	36	1,679	1,025	1,934	28	99	1,140	1,479	1,288	.87	44
Berkley . . .	927	395,224 00	7	152	94	159	8	25	93	131	101	.77	7
Dartmouth . . .	3,430	1,760,750 00	22	529	407	684	25	71	388	515	446	.87	22
Dighton . . .	1,791	707,488 00	9	299	204	366	3	48	204	286	242	.85	9
Easton . . .	3,902	3,193,197 00	19	831	503	936	5	103	562	786	643	.81	20
Fairhaven . . .	2,875	1,344,600 00	10	442	-	486	3	57	265	436	363	.83	13
Fall River . . .	49,006	39,171,264 00	119	9,585	4,709	9,155	-	403	4,649	6,314	5,650	.89	133
Freelton . . .	1,329	606,110 00	7	224	-	251	7	19	145	206	162	.78	8
Mansfield . . .	2,765	1,058,823 00	13	490	284	527	9	40	303	441	387	.88	13
New Bedford . . .	26,875	26,275,919 00	76	4,208	-	4,375	-	258	3,225	3,688	3,438	.93	96
Norton . . .	1,732	827,150 00	7	280	178	253	8	20	170	207	184	.88	7
Raynham . . .	1,681	857,610 00	10	314	189	322	16	33	174	238	210	.88	10
Rehoboth . . .	1,891	769,080 00	15	300	192	370	6	50	185	297	257	.86	15
Seekonk . . .	1,228	690,150 00	8	230	153	262	11	9	152	193	173	.90	8
Somerset . . .	2,006	1,017,910 00	8	392	249	469	4	42	216	382	298	.78	10
Swaunoy . . .	1,356	726,550 00	10	223	145	250	5	28	140	195	169	.86	10
Taunton . . .	2,898	14,212,330 00	61	3,246	1,803	3,529	-	234	997	2,766	2,535	.92	72
Westport . . .	21,213	1,382,000 00	20	519	319	561	15	68	350	439	373	.85	20
Totals . . .	139,121	\$100,029,138 00	463	24,147	10,531	25,106	158	1,634	13,515	19,169	17,066	.89	523

## DUKES COUNTY.

Chilmark . . .	494	\$226,626 00	4	61	42	82	1	15	43	78	61	.78	4
Cottage City *	679	1,245,180 00	-	-	-	-	-	-	-	-	-	-	-
Edgartown . .	1,301	815,350 00	9	262	166	297	6	22	164	287	240	.84	10
Gay Head . .	161	14,271 00	1	26	19	30	-	4	19	30	24	.80	1
Gosnold . . .	154	200,601 00	1	25	17	29	3	3	17	22	15	.68	1
Tisbury . . .	1,516	684,186 00	9	200	140	242	1	31	140	211	177	.83	9
Totals . . .	4,305	\$3,186,214 00	24	574	384	680	11	75	383	628	517	.82	25

\* New town, incorporated Feb. 17, 1880. Returns included this year with Edgartown.



## BRISTOL COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	A'v'ge wages per month of male teachers in Public Schools.	A'v'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than six months each.	HIGH SCHOOLS.						Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length.	Months.	
Acushnet .	3	5	3	1	\$36 00	\$31 00	52-5	8-14	-	1	-	-	-	-	-	-
Attleborough .	10	49	13	11	75 90	36 50	316-8	8-16	-	2	5	110	Taxation,	9	9	{ \$1,100 00 } { 1,100 00 }
Berkley .	-	8	5	5	-	27 49	54-5	7-15	-	1	1	28	Taxation,	9	9	600 00
Dartmouth .	8	24	3	2	32 95	23 90	178-5	8-2	-	1	-	-	-	-	-	-
Dighton .	1	13	3	1	32 00	32 07	65-5	7-5	-	1	-	-	-	-	-	-
Easton .	2	29	11	9	87 50	37 50	188	9-16	-	1	2	83	Taxation,	10	10	1,200 00
Fairhaven .	1	16	4	2	100 00	27 91	87	8-7	-	1	3	114	Taxation,	10	10	1,000 00
Fall River .	10	148	22	20	145 62	45 80	1194-15	9-19	-	1	7	343	Taxation,	10	10	2,500 00
Free town .	2	11	1	-	36 00	23 43	63	9	-	1	1	33	Taxation,	9-15	9-15	650 00
Mansfield .	4	12	4	4	45 75	30 40	108	8-6	-	1	10	240	Taxation,	10	10	1,700 00
New Bedford .	8	91	21	21	112 96	41 97	760	10	-	1	-	-	-	-	-	-
Norton .	4	7	5	4	35 00	33 40	57-15	8-5	-	-	-	-	-	-	-	-
Raynham .	-	16	7	5	-	32 73	78-15	7-7	-	-	-	-	-	-	-	-
Rehoboth .	3	17	1	-	30 40	29 71	105	7	-	-	-	-	-	-	-	-
Seekonk .	-	11	-	-	-	28 00	62-15	7-17	-	-	-	-	-	-	-	-
Somerset .	5	11	2	2	49 00	34 00	64	8	-	-	-	-	-	-	-	-
Swansey .	5	10	2	1	29 40	26 96	80	8	-	-	-	-	-	-	-	-
Taunton .	11	61	12	10	81 54	40 29	610	10	-	1	4	168	Taxation,	10	10	1,600 00
Westport .	11	23	1	1	30 82	21 05	148	7	1	1	1	74	Taxation,	9	9	500 00
Totals .	88	562	120	99	\$60 05	\$31 79	4,273-8	9-5	1	10	34	1,193	-	-	-	\$11,950 00

## DUKES COUNTY — CONTINUED.

Chilmark .	3	4	-	-	-	\$22 50	\$28 33	24	6	-	-	-	-	-	-	-
Cottage City .	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Edgartown .	9	11	-	-	-	51 33	27 62	68	7-11	1	1	2	42	-	8-10	\$586 50
Gay Head .	1	1	-	-	-	36 50	16 00	6-9	6-9	-	-	-	-	-	-	-
Gosnold .	1	2	-	-	-	28 00	26 00	9	9	-	-	-	-	-	-	-
Tisbury .	8	6	-	-	-	39 37	26 08	59-3	6-12	-	-	-	-	-	-	-
Totals .	22	24	-	-	-	\$35 54	\$24 80	166-12	6-19	1	1	2	42	-	8-10	\$586 50

## BRISTOL COUNTY — CONTINUED.

TOWNS.	Amount paid for all school purposes from money raised by taxation.	Amount raised by taxes for schools, including wages of teachers, board, fuel, care of fires and school-rooms, for the school-year 1879-80.	Expense of supervision by school-committee.	Salary of Superintendent of Public Schools.	Expenses of printing reports, etc.	Expense of sundries,—books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount of voluntary contributions for Public Schools.
Acushnet . . . . .	\$1,600 00	\$1,600 00	\$90 00	—	\$10 00	\$20 00	—	\$9 50	—	—
Attleborough . . . . .	17,500 00	17,500 00	668 05	—	40 25	102 00	—	1,000 00	\$250 00	—
Berkley . . . . .	1,695 27	1,350 00	41 00	—	14 00	27 65	—	201 75	66 62	—
Dartmouth . . . . .	9,026 01	4,500 00	146 50	—	35 75	120 18	\$2,598 33	125 77	310 03	—
Dighton . . . . .	2,440 22	2,200 00	98 75	\$98 75	16 25	31 00	—	—	94 22	\$71 00
Easton . . . . .	8,632 00	8,632 00	237 33	—	77 00	725 12	—	250 00	575 91	—
Fairhaven . . . . .	5,295 67	4,250 00	198 50	—	20 00	409 15	—	—	418 02	—
Fall River . . . . .	102,156 15	83,790 58	2,400 00	2,000 00	119 60	3,966 58	4,756 51	5,002 44	2,120 44	—
Freetown . . . . .	2,115 28	1,800 00	82 00	—	3 00	314 28	—	—	44 56	—
Mansfield . . . . .	4,300 00	4,300 00	156 25	—	15 00	—	—	300 00	135 00	—
New Bedford . . . . .	73,077 94	63,316 40	2,250 00	2,000 00	125 00	1,352 00	—	8,395 85	2,177 94	—
Norton . . . . .	1,981 95	1,800 00	90 00	—	12 80	33 52	—	114 00	148 43	—
Raynham . . . . .	2,841 38	2,500 00	150 00	150 00	15 00	25 00	—	—	50 43	—
Rehoboth . . . . .	3,373 38	3,000 00	93 75	—	30 00	—	—	—	100 00	—
Seekonk . . . . .	1,728 41	1,800 00	80 00	—	12 00	24 87	—	—	54 81	—
Somerset . . . . .	2,500 00	2,364 68	85 00	—	23 00	30 00	—	—	133 60	—
Swaunsey . . . . .	2,329 35	2,100 11	75 00	—	16 00	—	—	—	229 24	—
Taunton . . . . .	42,656 89	38,810 60	1,750 00	1,750 00	70 00	1,350 00	3,500 00	600 00	1,400 00	—
Westport . . . . .	4,285 00	3,500 00	180 00	—	30 00	35 00	—	200 00	150 00	—
Totals . . . . .	\$289,534 90	\$218,544 37	\$8,872 13	\$5,998 75	\$684 65	\$8,566 35	\$10,854 84	\$16,199 31	\$8,459 25	\$71 00

## DUKES COUNTY — CONTINUED.

Chilmark . .	\$505 15	\$150 00	\$12 00	—	\$3 50	\$5 00	—	—	\$4 65	—
Cottage City .	—	—	—	—	—	—	—	—	—	—
Edgartown . .	3,089 96	2,500 00	50 00	—	22 75	94 55	—	—	75 00	—
Gay Head . .	90 00	90 00	10 00	—	4 00	1 00	—	—	15 00	—
Gosnold . .	125 00	125 00	30 00	—	2 50	—	—	—	71 80	—
Tisbury . .	2,283 24	2,000 00	105 00	—	29 00	61 37	—	—	50 09	—
Totals . .	\$6,093 35	\$5,165 00	\$237 00	—	\$61 75	\$164 92	—	—	\$216 54	—

## BRISTOL COUNTY — CONCLUDED.

TOWNS.	ACADEMIES AND PRIVATE SCHOOLS.										
	Amount of local funds the income of which can be appropriated only for the support of schools and academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	Number.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.	Estimated amount of tuition.	Town's share of school-fund payable Jan. 25, 1880.	How much of said fund was used for apparatus and books of reference.
Acushnet . . . . .	—	—	\$83 41	1	—	—	1	—	—	\$220 01	—
Attleborough . . . . .	\$13,500 00	\$810 00	770 04	—	—	—	2	40	\$600 00	254 11	—
Berkley . . . . .	—	—	67 80	—	—	—	—	—	—	212 47	—
Dartmouth . . . . .	2,000 00	180 77	274 44	—	—	—	—	—	—	202 49	—
Dighton . . . . .	—	—	129 15	—	—	—	1	—	—	230 60	—
Easton . . . . .	50,000 00	4,000 00	323 84	—	—	—	—	—	—	229 23	\$57 43
Fairhaven . . . . .	5,000 00	300 00	182 42	—	—	—	3	40	600 00	196 95	—
Fall River . . . . .	—	—	—	—	—	—	5	900	10,000 00	—	—
Freetown . . . . .	—	—	136 14	—	—	—	—	—	—	220 90	—
Mansfield . . . . .	1,000 00	50 00	—	—	—	—	—	—	—	197 34	—
New Bedford . . . . .	50,000 00	3,000 00	684 00	1	30	\$4,000 00	20	190	3,800 00	—	—
Norton . . . . .	—	—	209 00	1	75	1,519 12	1	12	30 00	227 73	—
Raynham . . . . .	—	—	166 00	—	—	—	—	—	—	233 08	—
Rehoboth . . . . .	—	—	277 51	—	—	—	—	—	—	228 52	—
Seekonk . . . . .	—	—	—	—	—	—	—	—	—	225 26	1 00
Somerset . . . . .	—	—	338 63	—	—	—	—	—	—	244 47	—
Swansey . . . . .	—	—	—	—	—	—	—	—	—	221 10	—
Taunton . . . . .	8,000 00	800 00	—	1	99	3,600 00	1	33	250 00	—	—
Westport . . . . .	—	—	216 86	—	—	—	—	—	—	206 25	—
Totals . . . . .	\$129,500 00	\$9,140 77	\$3,859 24	3	204	\$9,119 12	32	1,215	\$20,680 00	\$3,550 51	\$58 43

## DUKES COUNTY — CONCLUDED.

Chilmark .	-	-	\$30 13	-	-	-	-	-	\$206 04	-
Cottage City .	-	-	-	-	-	-	-	-	-	-
Edgartown .	-	-	78 61	-	-	-	-	-	184 26	-
Gay Head .	-	-	-	-	-	-	-	-	203 07	-
Gosnold .	-	-	21 60	-	-	-	-	-	202 08	-
Tisbury. .	-	-	-	1	60	\$180 00	-	-	223 27	-
Totals .	-	-	\$130 34	1	60	\$180 00	-	-	\$1,018 72	-



## ESSEX COUNTY.

TOWNS.	Population — State Census, 1880.	Valuation — 1880.	No. of Public Schools.	No. of persons in town May 1, 1879, between 5 and 15 years of age.	No. of persons in town May 1, 1879, between 8 and 14 years of age.	No. of different pupils of all ages in the Pub- lic Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average No. belonging to all the Schools.	Average attendance in all the Pub. Schools dur- ing the school-year.	The per cent of attend- ance based upon the average No. belonging.	No. of teachers required by the Public Schools.
Amesbury	3,355	\$1,175,665 00	19	604	385	645	7	45	385	623	524	.85	19
Andover	5,171	3,042,904 00	20	826	524	830	13	23	494	666	618	.92	22
Beverly	8,445	8,408,300 00	28	1,388	847	1,381	—	100	851	1,360	1,104	.81	33
Boxford	824	569,722 00	5	128	77	135	—	14	74	102	89	.87	5
Bradford	2,643	1,152,101 00	8	371	170	404	—	65	170	346	299	.86	9
Danvers	6,636	3,508,125 00	20	1,080	661	1,218	13	104	698	1,039	918	.88	25
Essex	1,670	833,238 00	9	314	159	278	2	12	159	173	235	.88	9
Georgetown	2,231	1,077,064 00	10	415	275	410	5	12	256	382	334	.87	10
Gloucester	19,329	8,101,150 00	73	4,050	2,403	4,042	—	223	1,922	3,247	3,008	.92	86
Groveland	2,227	860,472 00	8	412	246	433	—	19	273	330	275	.83	8
Hamilton	935	611,720 00	4	106	82	134	1	8	73	106	80	.75	4
Haverhill	18,475	9,861,955 00	58	2,748	1,685	2,783	4	254	1,554	2,400	2,087	.87	67
Ipswich	3,699	1,835,500 00	15	555	—	677	2	74	433	557	485	.87	18
Lawrence	39,178	24,187,140 00	89	6,836	7,000	5,866	20	339	3,663	4,442	4,232	.95	118
Lynn	38,284	23,383,735 00	104	5,792	3,109	6,183	—	345	3,487	5,225	4,667	.89	114
Lynnfield	686	561,028 00	3	118	79	124	2	6	79	89	81	.91	3
Manchester	1,640	2,396,932 00	7	236	152	285	—	39	163	237	217	.91	7
Marblehead	7,467	3,462,500 00	19	1,458	1,123	1,382	—	68	1,012	1,302	1,156	.89	27
Merrimac *	2,237	1,063,655 00	10	367	183	389	9	19	179	357	315	.88	11
Methuen	4,392	2,266,461 00	16	630	411	690	7	49	398	569	504	.89	17
Middleton	1,000	515,910 00	4	179	107	201	4	15	117	149	132	.89	4
Nahant.	808	4,694,628 00	4	105	65	118	—	17	65	104	93	.90	4
Newbury	1,566	813,680 00	7	273	155	272	10	7	149	236	195	.84	9

Newburyport	13,537	7,486,677 00	37	2,450	1,375	2,049	-	65	1,150	1,704	1,406	.82	47
North Andover	3,217	2,138,534 00	14	548	348	593	1	48	321	503	418	.83	15
Peabody	9,028	6,541,850 00	23	1,730	1,015	1,802	-	106	983	1,519	1,276	.81	37
Rockport	3,912	1,974,799 00	12	784	-	838	-	91	468	692	620	.90	18
Rowley	1,201	503,622 00	5	255	190	200	2	14	135	200	150	.75	6
Salem	27,598	23,736,406 00	80	4,673	2,664	3,858	-	-	-	3,360	2,807	.81	87
Salisbury	4,079	1,692,664 00	18	684	404	750	16	70	412	658	552	.84	19
Saugus	2,626	1,465,095 00	12	462	325	478	5	30	288	418	379	.91	13
Swampscott	2,501	3,125,127 00	10	390	-	337	3	35	223	322	312	.97	10
Topsfield	1,165	700,292 00	5	176	116	202	5	21	96	158	116	.73	5
Wenham	889	528,900 00	5	152	102	183	4	12	100	147	138	.97	5
West Newbury	1,989	994,349 00	11	356	212	355	-	25	213	272	228	.84	11
Totals	244,640	\$155,241,900 00	772	41,651	26,649	40,825	140	2,374	21,043	33,994	30,050	.88	892

## ESSEX COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	A'v'ge wages per month of male teachers in Public Schools.	A'v'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than six months each.	HIGH SCHOOLS.					Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length. Months. Days.	
Amesbury	3	20	-	5	\$55 67	\$23 16	154-7	8-8	1	1	46	Taxation,	9-10	\$760 00	
Andover	-	29	5	4	-	37 67	172-3	8-12	-	1	76	Not by tax,	9-14	2,000 00	
Beverly	2	34	4	2	82 50	37 50	275	10	-	1	140	Taxation,	10	1,200 00	
Boxford	2	7	1	1	36 00	31 00	46	9-4	-	-	-	-	-	-	
Bradford	1	8	1	1	142 10	38 82	74-5	9-6	-	1	48	Taxation,	9-2	1,356 00	
Danvers	6	21	10	4	93 63	30 00	180-10	9-5	-	1	88	Taxation,	10	1,200 00	
Essex	2	7	5	3	61 00	29 00	76-10	8-10	-	-	-	-	-	-	
Georgetown	1	12	3	2	105 55	36 00	90	9	-	1	72	Taxation,	9	950 00	
Gloucester	4	87	24	20	140 00	35 10	730	10	-	1	163	Taxation,	10	1,800 00	
Groveland	1	7	-	-	83 33	32 00	75-10	9-9	-	1	50	Taxation,	9-10	750 00	
Hamilton	1	4	3	-	45 00	29 16	33-15	8-9	-	-	-	-	-	-	
Haverhill	5	62	6	5	136 00	49 50	577	10	-	1	159	Taxation,	10	1,800 00	
Ipswich	3	18	4	3	110 00	30 00	143-5	9	-	1	48	Part tax,	10	1,500 00	
Lawrence	8	123	17	15	175 00	50 00	890	10	-	1	195	Taxation,	10	2,000 00	
Lynn	9	118	49	33	130 73	49 00	1066	10-5	-	1	210	Taxation,	10-5	1,700 00	
Lynnfield	1	3	2	2	-	29 33	25-15	8-12	-	-	-	-	-	-	
Manchester	1	11	8	7	78 94	29 50	66-5	9-9	-	1	38	Taxation,	9-10	750 00	
Marblehead	3	24	9	5	96 00	39 00	194-15	10-5	-	1	93	Taxation,	10-5	1,201 30	
Merrimac	2	11	3	3	72 73	30 30	79-5	7-18	-	1	68	Taxation,	9-10	900 00	
Methuen	4	16	7	4	68 33	36 00	144	9	-	1	41	Taxation,	9	1,100 00	
Middleton	-	4	4	3	-	33 50	37	9-5	-	-	-	-	-	-	
Nahant	1	4	3	3	120 00	56 00	35	10	-	1	28	Taxation,	10	1,200 00	
Newbury	-	9	4	4	-	25 00	63	9	-	-	-	-	-	-	

# SCHOOL-RETURNS.

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Newburyport	6	41	4	4	95 83	30 13	370	10	-	1	5	141	Taxation,	10	1,700 00
North Andover	3	13	4	4	96 00	40 00	130-5	9-9	-	1	2	60	Taxation,	10	1,200 00
Peabody	5	33	18	6	117 50	40 97	230	10	-	1	3	87	Taxation,	10	1,400 00
Rockport	1	18	6	6	60 00	30 80	94-5	7-16	1	1	2	78	Taxation,	9	500 00
Rowley	1	5	-	-	48 00	21 80	43-15	8-15	-	-	-	-	-	-	-
Salem	6	97	60	60	177 24	53 79	820	10-5	-	1	8	164	Taxation,	10-5	2,500 00
Salisbury	5	20	2	2	63 60	29 33	144-10	8-2	-	1	2	50	Taxation,	9	900 00
Saugus	2	14	5	5	75 00	33 00	111	9-5	-	1	2	36	Taxation,	9-5	696 00
Swampscott	1	11	8	8	100 00	43 33	99	9-18	-	1	1	19	Taxation,	10	1,000 00
Topsfield	-	7	4	4	-	32 37	42-10	8-10	-	-	-	-	-	-	-
Wenham	-	5	2	2	-	30 00	42-10	8-10	-	-	-	-	-	-	-
West Newbury	3	9	1	1	43 50	27 11	84	7-13	-	1	1	28	Taxation,	8	500 00
Totals	92	912	286	232	\$93 42	\$35 12	7,451	9-13	2	26	74	2,926	-	-	\$32,563 30

## ESSEX COUNTY — CONTINUED.

TOWNS.	Amount paid for all school purposes from money raised by taxation.	Amount raised by taxes for Schools, including board, fuel, care of wages of teachers, rooms, for the school-year 1879-80.	Expense of supervision by school-committee.	Salary of Superintendent of Public Schools.	Expenses of printing reports, etc.	Expense of sundries, — books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount of voluntary contributions for Public Schools.
Amesbury	\$6,009 15	\$5,381 60	\$150 00	—	\$30- 00	\$91 30	—	\$171 77	\$184 48	\$96 00
Andover	9,729 85	8,500 00	430 00	—	50 00	151 02	—	—	598 83	—
Beverly	18,727 16	14,959 25	113 00	—	47 00	924 72	—	2,075 87	607 32	—
Boxford.	1,340 00	1,070 00	120 00	—	25 00	40 00	—	20 00	5 00	—
Bradford	4,500 00	4,500 00	140 00	—	15 00	41 44	—	—	113 73	—
Danvers.	13,187 50	10,200 00	613 25	—	74 25	700 00	\$1,000 00	—	600 00	—
Essex	3,068 94	2,400 00	180 00	—	47 00	20 00	—	—	251 00	—
Georgetown	4,750 00	4,500 00	225 00	—	37 00	100 00	—	200 00	85 00	—
Gloucester	47,280 81	34,000 00	2,000 00	\$2,000 00	177 20	2,864 83	—	1,234 38	3,798 22	1,900 00
Groveland	3,750 74	3,000 00	218 25	—	5 00	20 18	—	54 00	238 31	—
Hamilton	800 00	800 00	45 00	—	11 32	—	—	—	94 79	—
Haverhill	43,816 10	45,500 00	924 45	—	98 00	—	—	2,700 00	2,380 74	—
Ipswich	5,800 00	5,800 00	150 00	—	25 00	76 50	—	—	210 00	—
Lawrence	66,429 07	66,429 07	1,947 00	1,947 00	300 00	1,771 61	—	—	1,652 09	—
Lynn	90,701 12	72,074 89	2,173 10	—	242 65	3,723 89	—	1,200 00	2,286 59	—
Lynnfield	916 55	700 00	70 00	—	20 00	60 66	—	87 47	20 17	—
Manchester	3,352 74	2,800 00	175 00	—	25 00	114 10	—	535 79	—	—
Marblehead	13,499 74	13,109 87	25 00	—	40 00	669 14	—	—	70 38	—
Merrimac	4,067 00	4,000 00	150 00	—	27 00	54 19	—	291 65	230 22	—
Methuen	7,850 00	7,050 00	300 00	—	40 00	500 00	—	—	300 00	—
Middleton	1,471 03	1,300 00	71 00	—	13 00	34 03	—	—	40 00	—
Nahant	4,679 85	4,679 85	275 00	—	82 00	608 00	—	283 00	25 00	—
Newbury	1,800 00	1,500 00	53 00	—	20 00	25 00	—	—	—	—

Newburyport.	25,765 00	24,679 00	200 00	—	124 00	140 00	—	—	500 00	—
North Andover,	8,452 00	7,500 00	225 00	—	48 00	93 76	—	475 92	104 92	—
Peabody . . .	22,780 87	20,345 48	420 00	—	107 00	593 66	—	—	1,314 73	—
Rockport . .	5,200 00	4,519 17	400 00	—	30 00	306 80	—	—	456 12	—
Rowley . . .	1,665 00	1,340 00	65 00	—	20 00	20 00	—	150 00	40 00	—
Salem . . . .	91,009 39	63,837 10	2,500 00	2,500 00	148 03	7,195 26	11,000 00	4,130 00	3,614 26	—
Salisbury . .	6,762 75	6,000 00	237 66	—	50 00	149 38	—	—	563 69	115 00
Saugus . . .	5,432 35	5,000 00	145 00	—	75 00	60 00	—	—	195 91	—
Swampscott .	6,571 36	6,500 00	195 00	—	33 00	289 50	—	100 00	299 79	—
Topsfield . .	1,318 87	1,200 00	50 00	—	10 56	34 12	—	—	28 00	—
Wenham . . .	1,325 00	1,200 00	75 00	—	25 00	25 00	—	—	—	—
West Newbury,	3,211 65	2,990 21	101 25	—	25 00	110 25	—	—	110 19	—
Totals . . . .	\$536,941 59	\$459,365 49	\$15,161 96	\$6,447 00	\$2,147 01	\$21,608 34	\$12,000 00	\$13,709 85	\$21,020 48	\$2,111 00



BOARD OF EDUCATION.

ESSEX COUNTY — CONCLUDED.

TOWNS.	Amount of local funds the income of which can be appropriated only for the support of schools and acad- emies.	Income of local funds.	Income of surplus re- venue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.							
				Number.	Whole No. attend- ing for the year.	Amount of tu- tion paid.	No. of Private Schools.	Whole No. attend- ing for the year.	Estimated am't of tuition.	Town's share of school-fund pay- able Jan. 25, 1880.	How much of said fund was used for appara- tus and books of reference.
Amesbury	—	—	\$150 49	1	—	—	1	6	—	\$203 98	—
Andover	\$265,205 00	\$15,912 30	—	2	286	\$17,964 00	3	27	\$500 00	237 84	—
Beverly	3,000 00	180 00	345 50	—	—	—	3	60	500 00	133 40	\$33 10
Boxford	3,438 00	208 00	170 00	—	—	—	—	—	—	210 70	15 00
Bradford	—	—	—	1	136	6,680 00	2	23	275 00	186 15	—
Danvers	2,000 00	80 00	303 10	—	—	—	2	27	94 00	207 06	—
Essex	—	—	—	—	—	—	—	—	—	231 69	—
Georgetown	—	—	—	—	—	—	1	15	100 00	189 92	—
Gloucester	—	—	540 54	—	—	—	1	40	1,200 00	402 69	—
Groveland	—	—	—	—	—	—	—	—	—	240 91	—
Hamilton	—	—	72 15	—	—	—	—	—	—	214 36	69 00
Haverhill	4,300 00	430 00	—	—	—	—	—	103	2,600 00	251 46	36 00
Ipswich	30,900 00	1,982 96	211 76	—	—	—	3	—	—	204 77	—
Lawrence	—	—	—	—	—	—	1	1,200*	—	—	—
Lynn	—	—	—	—	—	—	3	115	2,000 00	—	—
Lynnfield	—	—	47 16	—	—	—	—	—	—	212 38	30 00
Manchester	—	—	—	—	—	—	—	—	—	174 17	12 00
Marblehead	—	—	348 68	—	—	—	2	44	528 00	245 00	—
Merimac *	—	—	—	—	—	—	2	45	45 00	213 28	20 00
Methuen	—	—	—	—	—	—	1	11	198 00	218 91	—
Middleton	—	—	—	—	—	—	—	—	—	109 31	—
Nahant.	—	—	—	—	—	—	—	—	—	233 87	—
Newbury	20,000 00	1,000 00	95 00	1	25	161 65	—	—	—	243 74	—

Newburyport	65,000 00	3,900 00	-	1	100	-	4	107	3,500 00	201 50	-
North Andover	-	-	-	-	-	-	1	7	200 00	168 77	-
Peabody	6,000 00	360 00	439 06	-	-	-	2	30	450 00	224 97	-
Rockport	-	-	-	-	-	-	1	21	200 00	182 98	-
Rowley	-	-	-	-	-	-	-	-	-	221 79	-
Salem	5,425 00	285 50	1,224 49	-	-	-	13	950	12,000 00	-	-
Salisbury	-	-	158 97	-	-	-	2	30	190 00	216 55	-
Saugus	-	-	-	-	-	-	-	-	-	194 77	-
Swampscott	-	-	-	-	-	-	-	-	-	187 14	40 00
Topsfield	-	-	107 57	-	-	-	-	-	-	217 33	24 50
Wenham	-	-	67 00	-	-	-	-	-	-	215 15	-
West Newbury	-	-	-	-	-	-	-	-	-	235 94	-
Totals	\$405,268 00	\$24,338 76	\$4,271 47	5	547	\$24,805 65	48	2,861	\$24,580 00	\$6,832 48	\$279 60

\* Parochial schools.

## FRANKLIN COUNTY.

TOWNS.	Population—State Census, 1880.	Valuation, 1880.	No. of Public Schools.	No. of persons in town May 1, 1879, between 5 and 15 years of age.	No. of persons in town May 1, 1879, between 8 and 14 years of age.	No. of different pupils of all ages in the Pub- lic Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 5 and 14 years of age.	Average No. belonging to all the schools.	Average attendance in all the Pub. Schools dur- ing the school-year.	The per cent of attend- ance based upon the average No. belonging.	No. of teachers required by the Public Schools.
Ashfield	1,062	\$436,016 00	14	178	—	240	9	34	128	195	179	.92	14
Barnardston	934	377,686 00	6	165	112	173	4	7	112	149	141	.94	6
Buckland	1,739	488,924 00	10	350	213	342	4	22	212	284	258	.91	10
Charlemont	932	310,235 00	9	129	66	158	3	33	66	110	97	.88	9
Colrain	1,777	595,381 00	14	301	218	383	6	53	205	291	242	.83	14
Coway	1,760	716,123 00	12	266	190	294	7	31	170	278	236	.85	13
Deerfield	3,543	1,202,403 00	19	568	400	555	—	20	375	509	439	.88	19
Erving	872	287,989 00	5	151	136	178	3	14	123	149	134	.90	5
Gill	733	422,820 00	6	122	85	136	2	15	85	121	108	.89	6
Greenfield	3,903	2,544,786 00	18	667	393	784	11	84	411	639	591	.92	22
Hawley	592	148,335 00	8	126	113	153	—	17	114	117	110	.94	8
Heath	560	177,224 00	7	95	66	146	3	28	65	122	97	.71	7
Leverett	742	267,670 00	6	114	64	151	6	27	68	123	101	.82	6
Leyden	507	195,015 00	5	100	51	119	—	22	51	92	71	.77	5
Monroe	166	39,617 00	3	56	35	67	2	6	35	58	44	.76	3
Montague	4,876	2,419,476 00	19	826	440	910	9	40	480	731	620	.81	19
New Salem	869	316,260 00	7	141	85	154	3	12	143	123	101	.82	7
Northfield	1,603	648,023 00	10	265	200	304	3	34	185	251	239	.95	10
Orange	3,171	1,399,740 00	18	453	277	558	12	41	307	446	427	.98	19
Rowe	502	166,784 00	7	96	74	126	6	33	70	90	81	.88	7
Shelburne	1,621	792,789 00	11	257	—	328	5	73	—	268	236	.88	13
Shutesbury	529	165,615 00	7	101	78	113	5	8	78	98	91	.93	7
Sunderland	755	407,319 00	6	159	91	189	6	21	109	162	144	.88	6

## SCHOOL-RETURNS.

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## HAMPDEN COUNTY.

Warwick	.	713	253,493 00	9	129	78	143	4	21	75	117	113	.90	15
Wendell	.	465	167,082 00	6	93	-	100	-	2	69	73	63	.86	6
Whately	.	1,074	481,518 00	6	211	185	227	9	16	169	168	146	.87	6
Totals	.	36,000	\$15,428,323 00	248	6,119	3,650	7,031	122	714	3,905	5,764	5,109	.89	262

Agawam	.	2,216	\$1,194,230 00	9	309	-	456	1	35	240	358	283	.84	10
Blandford	.	979	338,745 00	13	225	131	230	6	42	131	193	166	.86	13
Brimfield	.	1,203	492,376 00	8	221	144	230	3	23	152	179	160	.89	8
Chester	.	1,473	486,913 00	10	282	174	307	11	45	173	227	196	.86	10
Chicopee	.	11,325	4,980,705 00	27	2,104	1,763	1,467	11	87	1,042	1,120	1,041	.92	34
Granville	.	1,205	346,735 00	12	266	193	243	12	34	193	262	182	.68	12
Hampden	.	958	365,281 00	6	183	97	173	2	11	131	119	102	.85	6
Holland	.	302	119,320 00	4	65	38	73	6	10	38	67	47	.70	4
Holyoke	.	21,851	10,675,937 00	43	3,587	2,614	2,503	6	124	1,648	1,687	1,571	.93	50
Longmeadow	.	1,401	913,930 00	11	262	159	319	3	44	162	253	226	.89	11
Ludlow	.	1,526	643,289 00	11	317	192	332	5	20	172	231	194	.90	11
Mouson	.	3,758	1,282,931 00	17	584	-	589	16	21	339	456	403	.88	17
Montgomery	.	303	134,745 00	5	57	31	70	4	10	31	54	48	.88	5
Palmer	.	5,504	2,149,375 00	22	979	650	1,102	6	99	646	793	702	.88	22
Russell	.	823	416,498 00	5	124	74	142	13	5	74	100	82	.90	5
Southwick	.	1,104	601,465 00	10	212	136	248	8	42	136	202	145	.71	10
Springfield	.	33,340	31,148,675 00	88	5,524	3,149	5,636	20	521	2,874	4,475	4,192	.93	108
Tolland	.	452	180,716 00	7	78	60	72	4	9	51	49	48	.81	7
Wales	.	1,030	390,636 00	6	184	130	168	9	4	105	152	139	.91	6
Westfield	.	7,587	5,917,041 00	31	1,430	996	1,590	6	169	920	1,281	1,140	.87	39
West Springfield	.	4,149	2,825,909 00	17	739	-	801	3	30	482	676	577	.85	19
Wilbraham	.	1,628	696,276 00	9	264	160	268	2	19	168	234	202	.86	9
Totals	.	104,117	\$66,301,731 00	371	17,996	10,891	17,019	157	1,404	9,908	13,158	11,846	.89	416

## FRANKLIN COUNTY—CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	A'v'ge wages per month of male teachers in Public Schools.	A'v'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than six months each.	HIGH SCHOOLS.						
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length.		Salary of Principal.
														Months.	Days.	
Ashfield	2	19	2	1	\$25 00	\$26 69	100-10	7-3	-	1	2	50	-	Part tax,	8-5	\$600 00
Barnardston	1	8	-	-	32 00	29 17	46-10	7-15	-	-	-	-	-	-	-	-
Buckland	2	14	4	3	23 00	21 92	74-10	7-9	-	-	-	-	-	-	-	-
Charlemont	2	11	2	-	28 00	20 42	55-10	6-18	-	-	-	-	-	-	-	-
Colrain	7	15	1	-	25 14	21 67	90	6-8	-	-	-	-	-	-	-	-
Conway	2	13	2	1	41 66	23 66	84-5	7-2	-	1	2	49	-	Taxation,	6	300 00
Deerfield	1	23	8	7	45 00	30 00	143-8	7-10	-	1	1	30	-	Taxation,	9	432 00
Erving	1	5	1	1	23 00	28 50	34	6	-	-	-	-	-	-	-	-
Gill	-	8	-	-	-	23 66	41	6-17	-	-	-	-	-	-	-	-
Greenfield	3	22	-	-	83 50	36 50	155-15	8-13	-	1	3	76	-	Taxation,	9-5	1,300 00
Hawley	-	11	-	-	-	16 50	48	6	-	-	-	-	-	-	-	-
Heath	3	9	1	-	27 33	16 72	44	6-6	-	-	-	-	-	-	-	-
Leverett	-	8	-	-	-	22 24	44-12	7-8	-	-	-	-	-	-	-	-
Leyden	3	5	-	-	27 75	20 50	36-5	7-5	-	-	-	-	-	-	-	-
Monroe	1	4	-	-	18 00	14 60	18	6	-	-	-	-	-	-	-	-
Montague	2	26	13	12	42 00	33 00	154	8-10	-	1	1	40	-	Taxation,	9	450 00
New Salem	1	6	1	1	20 00	22 94	52-10	7-10	-	-	-	-	-	-	-	-
Northfield	2	15	3	3	34 33	26 00	74-15	7-5	-	-	-	-	-	-	-	-
Orange	7	23	2	1	48 38	26 15	115-15	6-9	-	1	2	60	-	Taxation,	9	810 00
Rowe	2	9	1	1	20 00	16 00	42	6	-	-	-	-	-	-	-	-
Shelburne	1	15	3	-	29 00	27 75	88-7	8-1	-	1	2	46	-	Taxation,	8-10	375 00
Shutesbury	2	10	-	-	28 00	20 00	42	6	-	-	-	-	-	-	-	-
Sunderland	1	9	-	-	40 00	27 57	44-19	7-9	1	-	-	-	-	-	-	-

# SCHOOL-RETURNS.

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Warwick . . .	3	12	2	2	30 67	21 00	54	6	-	-	-	-	-	-
Wendell . . .	-	11	-	-	-	19 20	36	6	-	-	-	-	-	-
Whately . . .	-	8	-	-	-	21 68	51-15	8-9	-	1	29	Taxation,	3	84 00
Totals . . .	49	319	36	33	\$32 99	\$23 58	1,772-6	7-3	1	8	14	380	-	\$4,351 00

## HAMPDEN COUNTY—CONTINUED.

Agawam . . .	2	11	6	6	\$43 00	\$36 00	72	8-15	-	-	-	-	-	-
Blandford . . .	4	19	1	1	28 50	23 62	84-14	7	-	-	-	-	-	-
Brimfield . . .	2	12	2	2	23 00	27 34	54	7-10	-	-	4	111	Endow'm't,	\$1,200 00
Chester . . .	1	15	1	1	48 60	18 92	71-9	7-3	-	1	-	-	-	{ 1,600 00
Chicopee . . .	4	40	8	6	120 00	41 20	258-15	9-12	-	2	5	82	Taxation,	{ 1,200 00
Granville . . .	-	18	6	4	-	23 30	77	6-12	-	-	-	-	-	-
Hampden . . .	2	8	2	1	24 75	24 75	48	8	-	-	-	-	-	-
Holland . . .	1	5	2	1	20 00	19 00	21-10	6	-	-	-	-	-	-
Holyoke . . .	7	43	5	4	91 00	41 66	400-19	9-15	-	1	4	109	Taxation,	1,600 00
Lougmeadow . . .	1	13	6	5	44 00	30 05	92-7	8-18	-	-	-	-	-	-
Ludlow . . .	1	16	2	1	24 00	24 00	88-5	8	1	-	-	-	-	-
Monson . . .	7	18	1	1	31 00	31 20	133-18	7-17	-	1	3	63	Taxation,	1,200 00
Montgomery . . .	-	7	-	-	-	20 00	30	6	-	-	-	-	-	-
Palmer . . .	4	23	5	5	56 00	32 85	190	8-13	-	1	1	45	Taxation,	940 00
Russell . . .	-	5	1	2	-	24 00	29-15	5-19	-	-	-	-	-	-
Southwick . . .	2	14	2	2	21 00	23 23	82-5	8-5	-	-	-	-	-	-
Springfield . . .	9	109	26	17	159 00	51 20	880	10	-	1	9	426	Taxation,	2,600 00
Tolland . . .	-	11	2	2	-	20 00	38	5-8	-	3	-	-	-	-
Wales . . .	1	9	-	-	30 00	20 00	42	7	-	-	-	-	-	-
Westfield . . .	7	48	40	38	98 46	35 22	280	9-1	-	1	5	146	Taxation,	1,612 50
West Springfield . . .	1	18	6	6	100 00	29 40	154	9-1	-	1	2	55	Taxation,	1,000 00
Wilbraham . . .	4	9	-	-	27 75	27 75	66-5	7-7	-	-	-	-	-	-
Totals . . .	60	471	124	102	\$54 97	\$28 39	3,195-2	8-12	4	9	33	1,037	-	\$12,952 50



## FRANKLIN COUNTY—CONTINUED.

TOWNS.	Amount paid for all school purposes from money raised by taxation.	Amount raised by taxes for Schools, including wages of teachers, board, fuel, care of dress and school-rooms, for the school-year 1879-80.	Expense of supervision by school-committee.	Salary of Superintendent of Public Schools.	Expenses of printing reports, etc.	Expense of sundries, books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount of voluntary contributions for Public Schools.
Ashtfield	\$2,084 25	\$1,600 00	\$112 75	—	\$15 00	—	—	—	—	\$250 00
Barnardston	550 00	550 00	70 00	—	11 25	\$14 50	—	\$42 00	\$4 00	—
Buckland	1,680 93	1,600 00	122 00	—	24 00	46 70	—	209 44	6 81	—
Charlemont	1,358 82	1,000 00	58 00	—	7 00	16 50	—	—	21 01	—
Colrain	2,190 19	2,000 00	94 00	—	16 00	—	—	—	45 23	68 00
Conway	2,294 64	2,000 00	116 50	—	14 00	131 48	—	—	—	75 00
Deerfield	5,402 39	4,500 00	266 00	—	40 00	128 00	—	175 00	300 00	50 00
Erving	1,298 37	1,000 00	43 22	—	—	57 69	—	—	15 00	—
Gill	800 00	800 00	34 00	—	8 00	—	\$725 00	—	20 00	96 00
Greenfield	9,722 57	8,000 00	300 00	—	12 35	840 22	—	—	570 00	—
Hawley	714 77	1,000 00	33 25	—	—	—	—	—	—	75 00
Heath	645 26	700 00	40 00	—	9 00	—	—	—	—	40 00
Leverett	800 00	800 00	38 25	—	6 00	3 25	—	—	—	—
Leyden	625 00	600 00	35 00	—	5 00	—	—	—	—	—
Monroe	125 15	200 00	19 50	—	5 50	5 00	—	—	—	44 00
Montague	7,164 63	7,000 00	300 00	—	17 00	71 00	2,805 50	300 00	132 08	—
New Salem	1,725 00	1,100 00	34 00	—	8 00	—	550 00	—	75 00	—
Northfield	2,000 00	2,000 00	101 75	—	9 00	—	—	—	50 00	—
Orange	5,714 56	4,100 00	204 75	—	18 79	45 00	1,255 00	—	91 02	—
Rowe	650 00	650 00	30 00	—	10 00	—	—	—	15 00	—
Shelburne	3,045 10	3,000 00	75 00	—	18 00	25 00	—	—	69 95	—
Shutesbury	666 06	600 00	32 00	—	3 24	30 82	—	—	—	—
Sunderland	1,230 10	1,200 00	58 00	—	7 77	36 02	—	—	55 46	—

### SCHOOL-RETURNS.

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## HAMPDEN COUNTY — CONTINUED.

HAMPDEN COUNTY — CONTINUED.										
Warwick	1,180 00	1,000 00	50 00	—	15 00	—	—	125 00	—	—
Wendell	712 25	700 00	46 50	—	7 00	12 31	—	95 22	53 33	—
Whately	1,137 60	1,200 00	65 00	—	10 00	3 00	—	250 00	20 00	—
Totals	\$55,517 64	\$18,900 00	\$2,379 47	—	\$296 90	\$1,466 49	\$5,335 50	\$1,196 66	\$1,543 89	\$698 00
Agawam	\$3,439 00	\$3,000 00	\$120 00	—	\$10 00	\$22 00	—	\$240 00	\$47 00	—
Blandford	1,200 00	1,200 00	42 00	—	6 00	—	—	—	52 80	\$250 00
Brimfield	3,806 44	1,600 00	70 00	—	15 00	175 47	\$1,964 36	14 11	118 00	—
Chester	1,316 58	1,200 00	82 90	—	11 00	15 00	—	—	7 68	40 00
Chicopee	22,796 02	21,850 00	300 00	\$1,000 00	36 07	110 39	2,363 56	833 57	706 52	—
Granville	1,564 30	1,500 00	52 32	—	8 00	64 50	450 00	—	—	—
Hampden	1,261 98	1,100 00	89 00	—	32 00	8 58	—	12 68	19 72	—
Holland	429 25	200 00	16 50	—	6 00	5 00	—	—	10 00	16 00
Holyoke	49,549 77	27,760 42	1,600 00	1,600 00	50 00	1,618 00	13,521 35	2,500 00	2,500 00	400 00
Longmeadow	3,150 00	2,800 00	141 05	—	20 60	5 07	—	217 62	125 41	15 00
Ludlow	2,259 09	2,200 00	80 00	—	7 50	—	—	—	—	—
Monson	5,045 47	4,600 00	144 25	—	5 00	52 15	—	—	84 16	—
Montgomery	425 00	425 00	12 50	—	—	12 92	—	—	—	—
Palmer	9,000 00	7,500 00	310 00	—	27 62	113 01	356 05	560 65	239 25	—
Russell	745 75	800 00	38 00	—	—	—	—	—	27 43	—
Southwick	1,000 00	1,000 00	108 50	—	10 00	—	—	—	25 00	—
Springfield	84,308 69	81,500 00	3,000 00	3,000 00	35 00	2,740 08	—	—	2,528 04	—
Tolland	775 00	500 00	—	—	6 00	—	—	—	—	56 00
Wales	1,036 48	650 00	56 50	—	10 00	9 71	—	—	36 99	—
Westfield	18,790 53	17,750 00	490 00	—	71 56	460 01	—	585 78	490 07	—
W. Springfield	6,500 00	6,500 00	175 00	—	25 00	21 77	—	—	450 00	—
Wilbraham	4,425 50	1,800 00	130 00	—	14 00	11 55	2,411 70	44 84	13 41	—
Totals	\$232,824 85	\$187,435 42	\$7,058 52	\$5,600 00	\$406 35	\$5,445 21	\$21,067 02	\$5,009 25	\$7,481 48	\$777 00

## BOARD OF EDUCATION

## FRANKLIN COUNTY—CONCLUDED.

[illegible]

Warwick	500 00	30 00	-	-	-	-	-	211 19	-
Wendell	550 00	32 00	31 00	-	-	-	-	208 22	-
Whately	-	-	-	-	-	-	-	220 11	-
Totals	\$72,247 50	\$4,933 89	\$1,062 63	3	182	\$810 00	166	\$5,904 52	\$269 46

## HAMPDEN COUNTY — CONCLUDED.

Agawam	-	-	\$182 98	-	-	-	-	\$182 98	-
Blandford	\$2,500 00	\$125 00	79 51	-	-	-	-	219 21	-
Brimfield	67,000 00	4,000 00	-	-	-	-	-	224 46	\$12 00
Chester	500 00	21 79	81 57	-	-	-	14	225 25	-
Chicopee	-	-	-	-	-	-	580	306 20	-
Granville	-	-	-	-	-	-	-	225 75	64 50
Hampden	-	-	81 31	-	-	-	-	215 64	30 00
Holland	222 22	13 33	23 08	-	-	-	-	205 74	-
Holyoke	-	-	561 26	-	-	-	1,133	313 25	-
Longmeadow	731 00	43 86	139 54	-	-	-	-	225 05	-
Ludlow	-	-	-	-	-	-	-	222 88	-
Monson	25,000 00	1,500 00	245 22	1	55	\$1,200 00	-	207 93	-
Montgomery	-	-	36 94	-	-	-	-	206 23	-
Palmer	850 00	34 00	244 19	-	-	-	-	241 61	-
Russell	-	-	257 43	-	-	-	-	211 77	-
Southwick	15,618 03	937 08	87 72	-	-	-	-	220 40	-
Springfield	-	-	-	-	-	-	450	-	-
Tolland	-	-	55 00	-	-	-	-	208 21	-
Wales	-	-	66 18	-	-	-	-	214 25	-
Westfield	80,407 00	4,044 34	424 75	-	-	-	50	140 34	35 08
West Springfield	13,500 00	750 00	251 88	-	-	-	15	218 74	-
Wilbraham	1,308 40	78 50	108 50	1	429	7,501 87	27	223 86	32 50
Totals	\$207,636 65	\$11,547 90	\$2,927 06	2	484	\$8,701 87	2,269	\$4,659 75	\$174 08

## HAMPSHIRE COUNTY.

TOWNS.	Population - State Census, 1880.	Valuation - 1880.	No. of Public Schools.	No. of persons in town May 1, 1879, between 5 and 15 years of age.	No. of persons in town May 1, 1879, between 8 and 14 years of age.	No. of different pupils of all ages in the Pub- lic Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average No. belonging to all the Schools.	Average attendance in all the Pub. Schools dur- ing the school-year.	The per cent of attend- ance based upon the average No. belonging.	No. of Teachers required by the Public Schools.
Amherst . . . . .	4,299	\$2,515,423 00	18	734	400	715	1	125	379	648	586	.90	21
Belchertown . . . . .	2,346	927,530 00	19	480	307	551	13	66	300	408	373	.91	19
Chesterfield . . . . .	769	295,107 00	9	135	86	134	5	23	81	119	115	.98	9
Cummington . . . . .	881	366,821 00	9	156	-	189	2	13	108	158	134	.85	10
Easthampton . . . . .	4,206	2,232,595 00	18	847	481	804	6	70	457	671	598	.89	18
Enfield . . . . .	1,043	637,050 00	7	187	130	192	5	23	131	191	152	.82	11
Goshen . . . . .	327	140,530 00	4	68	44	82	2	12	45	54	46	.86	8
Granby . . . . .	753	432,772 00	9	142	80	155	2	10	68	129	119	.93	8
Greenwich . . . . .	634	257,827 00	6	104	63	116	4	14	64	94	86	.91	6
Hadley . . . . .	1,938	1,235,045 00	13	427	296	495	19	22	272	387	335	.80	13
Hatfield . . . . .	1,495	1,063,711 00	7	323	-	333	7	11	225	283	232	.82	7
Huntington . . . . .	1,236	488,634 00	9	192	118	240	9	37	127	184	160	.87	9
Middlefield . . . . .	648	314,070 00	8	148	103	185	6	22	101	132	112	.85	8
Northampton . . . . .	12,172	7,131,900 00	49	2,026	1,232	2,197	23	163	1,299	1,746	1,600	.92	53
Pelham . . . . .	614	168,489 00	4	129	84	126	3	9	73	99	84	.85	4
Plainfield . . . . .	457	146,075 00	5	60	50	68	3	5	50	58	47	.81	4
Prescott . . . . .	460	192,895 00	5	88	61	121	2	26	61	96	82	.85	5
South Hadley . . . . .	3,538	1,643,080 00	16	627	-	780	5	75	482	597	554	.93	18
Southampton . . . . .	1,046	485,554 00	8	200	132	205	3	25	132	157	136	.87	8
Ware . . . . .	4,817	1,860,820 00	18	874	592	834	-	29	428	620	576	.92	20
Westhampton . . . . .	564	245,913 00	5	140	77	122	4	9	75	104	96	.92	5

## SCHOOL-RETURNS.

XXXV

Williamsburg	.	2,234	955,897 00	13	411	-	450	-	36	235	384	308	.80	14
Worthington	.	758	320,042 00	10	134	90	144	3	13	90	140	109	.78	11
Totals	.	47,235	\$24,078,980 00	209	8,632	4,426	9,298	127	838	5,283	7,459	6,640	.89	290





	1	8	2	20 00	17 92	38	7-12	-	-	-	-	-	-	-	-	-	-	-
Westhampton	1	21	4	48 00	26 00	83-16	7-10	-	-	-	-	-	-	-	-	-	-	-
Williamsburg	1	15	3	-	20 00	71-10	6-10	-	-	-	-	-	-	-	-	-	-	-
Worthington	-																	
Totals	63	353	56	\$37 65	\$23 51	2,083-8	7-15	-	10	18	567	-	-	-	-	-	\$7,797 11	

## HAMPSHIRE COUNTY — CONTINUED.

TOWNS.	Amount paid for all school purposes from taxation.	Amount raised by taxes for Schools, including wages of teachers, board, fuel, care of fires and school-rooms for the school-year 1879-80.	Expense of supervision by school-committee.	Salary of Superintendent of Public Schools.	Expenses of printing reports, etc.	Expense of sundries, books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount of voluntary contributions for Public Schools.
Amherst . . . . .	\$7,200 00	\$6,419 84	\$500 00	—	\$10 00	\$305 23	—	—	\$592 91	\$50 00
Belchertown . . . . .	3,455 23	3,500 00	184 00	—	31 00	36 14	—	\$456 64	97 49	—
Chesterfield . . . . .	900 00	900 00	50 00	—	10 00	125 00	—	200 00	10 00	175 00
Cummington . . . . .	1,018 00	700 00	70 50	—	8 00	5 00	—	—	—	350 00
Easthampton . . . . .	7,800 70	6,550 00	180 00	—	34 00	177 86	—	400 00	458 84	—
Enfield . . . . .	1,400 00	1,200 00	51 50	—	10 00	172 60	—	158 00	45 00	—
Goshen . . . . .	342 25	300 00	19 25	—	8 00	—	—	—	15 00	104 00
Granby . . . . .	2,029 06	1,700 00	104 75	—	15 00	14 56	—	—	35 06	—
Greenwich . . . . .	600 00	600 00	50 00	—	8 00	15 00	—	—	14 00	—
Hadley . . . . .	2,838 35	2,500 00	101 48	—	10 00	25 00	\$499 25	—	282 00	—
Hatfield . . . . .	1,677 85	1,400 00	74 00	—	10 00	60 00	—	—	95 00	673 00
Huntington . . . . .	1,525 88	1,300 00	105 00	—	8 00	42 69	—	—	70 19	10 00
Middlefield . . . . .	800 00	800 00	60 00	—	7 00	17 00	—	—	20 00	—
Northampton . . . . .	23,243 91	19,600 00	1,000 00	\$1,000 00	62 04	486 03	—	300 00	1,243 52	—
Pelham . . . . .	650 00	650 00	50 00	—	6 00	105 59	—	—	52 38	—
Plainfield . . . . .	698 00	600 00	55 75	—	8 00	37 00	—	—	3 06	—
Prescott . . . . .	655 47	600 00	40 75	—	10 45	—	—	—	—	—
South Hadley . . . . .	8,066 75	7,500 00	290 00	—	15 00	220 00	—	7,000 00	45 00	—
Southampton . . . . .	1,200 00	1,200 00	48 50	—	—	—	—	—	—	18 00
Ware . . . . .	7,966 36	6,750 00	288 75	—	12 00	192 53	—	221 13	164 57	—
Westhampton, . . . . .	887 70	800 00	43 00	—	5 00	17 57	—	—	22 19	—

Williamsburg, Worthington .	2,184 61 1,035 00	2,184 61 800 00	40 00 45 00	- -	12 00 5 00	- 10 00	- -	163 00	- 12 00	- 425 00
Totals .	\$78,175 12	\$68,544 45	\$2,452 23	\$1,000 00	\$304 49	\$2,064 80	\$499 25	\$8,898 77	\$2,778 21	\$1,805 00

## HAMPSHIRE COUNTY — CONCLUDED.

TOWNS.	Amount of local funds the income of which can be appropriated only for the support of schools and acad- emies.	Income of local funds.	Income of surplus rev- enue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS						Town's share of school-land pay- able Jan. 25, 1880.	How much of said fund was used for appa- ratus and books of reference.
				Number.	Whole No. attend- ing for the year.	Amount of con- tribution paid.	No. of Private Schools.	Whole No. attend- ing for the year.	Estimated amount of tuition.		
Amherst . . . . .	\$5,000 00	\$300 00	\$135 61	—	—	—	2	35	\$650 00	\$219 93	—
Belchertown . . . . .	—	—	109 72	—	—	—	1	12	25 00	248 03	\$11 96
Chesterfield . . . . .	1,100 00	66 00	250 00	—	—	—	—	—	—	211 69	—
Cummington . . . . .	—	—	31 47	—	—	—	—	—	—	215 45	—
Easthampton . . . . .	57,000 00	4,000 00	106 56	1	180	\$12,000 00	—	—	—	237 75	57 00
Enfield . . . . .	—	—	114 38	—	—	—	—	—	—	217 03	—
Goshen . . . . .	—	—	—	—	—	—	—	—	—	207 13	9 00
Granby . . . . .	—	—	31 29	—	—	—	—	—	—	213 86	—
Greenwich . . . . .	500 00	30 00	36 22	—	—	—	—	—	—	208 42	13 66
Hadley . . . . .	30,000 00	1,500 00	—	1	59	—	1	10	750 00	194 57	—
Hatfield . . . . .	55,000 00	3,800 00	—	1	130	372 75	—	—	—	179 02	—
Huntington . . . . .	—	—	57 18	—	—	—	—	—	—	219 21	16 50
Middlefield . . . . .	—	—	137 00	—	—	—	1	39	195 00	213 76	22 00
Northampton . . . . .	3,066 95	144 00	—	—	—	—	6	100	875 00	206 80	—
Pelham . . . . .	—	—	39 02	—	—	—	—	—	—	212 77	—
Plainfield . . . . .	—	—	23 95	—	—	—	—	—	—	206 04	6 00
Prescott . . . . .	—	—	27 00	—	—	—	1	25	60 00	209 70	8 00
South Hadley . . . . .	—	—	123 63	1	228	39,375 00	—	—	—	206 45	—
Southampton . . . . .	1,875 00	112 50	72 20	—	—	—	—	—	—	221 00	—
Ware . . . . .	—	—	—	—	—	—	—	—	—	244 09	—
Westhampton . . . . .	—	—	17 77	—	—	—	2	7	200 00	211 68	—

Williamsburg	.	12,000 00	87 78	79 20	-	-	-	-	-	240 81	-
Worthington	.	2,441 00	146 46	166 40	-	-	-	-	-	213 66	-
Totals	.	\$167,982 95	\$11,186 74	\$1,558 60	4	597	\$51,747 75	14	228	\$3,755 00	\$4,938 85
											\$144 06



## MIDDLESEX COUNTY.

TOWNS.	Population - State Census, 1880.	Valuation - 1880.	No. of Public Schools.	No. of persons in town May 1, 1879, between 5 and 15 years of age.	No. of persons in town May 1, 1879, between 8 and 14 years of age.	No. of different pupils of all ages in the Pub- lic Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average No. belonging to all the schools.	Average attendance in all the Pub. Schools dur- ing the school-year.	The per cent of attend- ance based upon the average No. belonging.	No. of teachers required by the Public Schools.
Acton . . . . .	1,797	\$1,195,185 00	9	303	200	325	3	50	200	270	252	.93	9
Arlington . . . . .	4,100	4,533,128 00	20	812	534	872	-	85	522	732	653	.84	23
Ashby . . . . .	914	473,006 00	10	174	102	236	1	57	102	227	226	.91	11
Ashland . . . . .	2,394	1,169,243 00	12	381	223	469	4	29	269	374	343	.92	12
Ayer . . . . .	1,882	995,014 00	8	369	223	436	10	36	227	357	331	.94	8
Bedford . . . . .	931	759,392 00	6	151	109	181	1	18	109	149	118	.79	6
Belmont . . . . .	1,615	2,826,855 00	10	420	242	430	12	33	242	382	349	.91	14
BillERICA . . . . .	2,000	1,692,881 00	10	344	-	381	4	9	252	297	239	.80	10
Boxborough . . . . .	319	254,236 00	4	54	28	62	2	13	28	56	49	.87	4
Burlington . . . . .	711	497,062 00	5	116	69	118	2	18	62	94	83	.88	5
Cambridge . . . . .	52,740	48,908,900 00	29	8,885	-	8,500	5	614	-	6,957	6,385	.91	173
Carlisle . . . . .	478	398,875 00	5	58	44	66	5	6	44	60	53	.90	5
Chelmsford . . . . .	2,553	1,401,316 00	13	450	273	487	3	44	304	412	344	.83	14
Concord . . . . .	3,922	3,041,863 00	13	535	425	584	2	74	416	479	430	.89	15
Dracut . . . . .	1,605	1,007,593 00	10	239	135	294	3	28	171	230	196	.85	10
Dunstable . . . . .	453	279,951 00	5	67	42	76	1	9	41	71	70	.98	5
Everett . . . . .	4,159	4,221,400 00	14	734	438	862	-	115	476	648	595	.91	17
Framingham . . . . .	6,235	4,785,140 00	23	990	575	1,150	9	119	658	909	824	.90	29
Groton . . . . .	1,862	2,313,210 00	14	325	191	415	13	77	191	291	269	.90	14
Holliston . . . . .	3,099	1,806,550 00	16	605	724	685	9	71	367	576	531	.92	16
Hopkinton . . . . .	4,602	2,424,379 00	23	925	724	1,150	14	73	689	985	862	.87	24
Hudson . . . . .	3,739	1,823,584 00	15	774	445	805	12	59	444	682	621	.91	17
Lexington . . . . .	2,460	2,589,337 00	11	420	310	478	11	63	297	373	342	.91	13

Lincoln	882	892,587	00	5	148	99	171	4	28	92	134	118	70	5
Littleton	994	721,145	00	7	159	116	223	-	45	120	182	162	89	7
Lowell	59,485	41,102,017	00	81	8,393	4,730	9,118	-	609	4,786	6,750	6,102	90	153
Malden	12,017	10,747,905	00	42	2,153	1,400	2,688	-	210	1,257	2,029	1,844	90	49
Marlborough	10,126	3,562,563	00	34	2,066	-	2,068	15	113	1,284	1,861	1,611	87	39
Maynard	2,291	1,492,310	00	8	476	256	506	3	19	261	364	337	92	8
Medford	7,573	7,346,615	00	22	1,279	765	1,265	-	134	749	1,101	1,029	93	30
Melrose	4,560	3,650,384	00	16	840	-	912	-	95	534	770	692	90	19
Natick	8,480	4,654,435	00	32	1,597	719	1,634	-	78	703	1,401	1,307	93	36
Newton	16,995	25,200,100	00	64	3,028	1,759	3,397	21	410	1,681	2,792	2,541	91	75
North Reading	900	535,723	00	6	156	111	169	1	10	95	153	126	85	6
Pepperell	2,348	1,308,876	00	9	330	203	304	9	10	190	252	219	87	9
Reading	3,181	2,457,816	00	15	487	300	607	20	107	298	523	473	90	16
Sherborn	1,401	844,780	00	6	156	100	171	3	9	121	129	116	89	6
Shirley	1,365	720,323	00	8	204	-	233	1	21	77	192	162	84	8
Somerville	24,985	20,458,100	00	81	4,500	2,570	5,162	-	355	2,450	4,168	3,902	93	92
Stoneham	4,891	2,978,355	00	18	872	524	949	4	71	520	779	724	93	21
Stow	1,045	806,325	00	6	191	117	217	1	33	116	168	164	97	6
Sudbury	1,178	1,025,790	00	8	192	113	232	8	46	110	204	178	87	8
Tewksbury	2,171	1,031,054	00	7	187	130	226	2	12	113	157	139	88	7
Townsend	1,967	1,037,725	00	16	359	-	388	7	61	190	424	354	83	16
Tyngsborough	631	316,692	00	9	105	75	118	4	19	70	119	99	83	9
Wakefield	5,548	3,435,205	00	18	866	475	997	-	90	560	807	729	90	20
Waltham	11,711	8,827,150	00	37	1,808	1,144	2,227	14	143	1,028	1,778	1,639	92	43
Watertown	5,426	7,409,050	00	17	872	558	960	-	84	547	788	728	92	21
Wayland	1,962	1,204,363	00	10	389	231	424	7	28	229	345	283	72	10
Westford	2,147	1,002,317	00	11	290	176	389	18	10	184	279	226	80	11
Weston	1,448	1,633,500	00	8	220	155	241	3	37	145	220	184	83	8
Wilmington	933	564,603	00	6	175	127	169	-	21	104	139	120	86	6
Winchester	3,802	3,602,501	00	14	584	-	748	7	79	470	593	544	92	19
Woburn	10,938	8,239,859	00	42	2,424	1,464	2,238	-	164	1,405	2,238	1,790	80	47
Totals	317,951	\$258,392,568	00	954	53,637	23,526	58,203	273	4,851	26,600	47,450	42,816	90	1,204

## MIDDLESEX — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	A'v'ge wages per month of male teachers in Public Schools.	A'v'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than six months each.	HIGH SCHOOLS.					Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length. Months.	
Acton . . . . .	1	15	2	1	\$40 00	\$33 33	69-16	8-5	-	1	1	-	Taxation,	10-5	\$1,440
Arlington . . . . .	4	19 <sup>9</sup>	6	5	112 68	44 21	206	10-5	-	1	3	55	-	-	-
Ashby . . . . .	2	9	4	2	34 22	29 80	56-10	6	-	-	-	-	-	-	-
Ashland . . . . .	1	14	4	-	100 00	33 40	85	7-10	-	1	1	46	Taxation,	10	1,000
Ayer . . . . .	1	8	-	-	100 00	37 78	63-15	7-19	-	1	1	34	Taxation,	9-5	925
Bedford . . . . .	1	6	2	2	34 67	31 20	53-10	9	-	1	-	-	-	-	-
Belmont . . . . .	2	12	2	2	150 00	43 13	100	10	-	1	2	54	Taxation,	10	1,500
Billerica . . . . .	-	14	-	3	-	31 40	87-4	8-18	-	-	-	-	-	-	-
Boxborough . . . . .	1	6	1	1	32 00	28 00	27	6-15	-	-	-	-	-	-	-
Burlington . . . . .	1	4	-	-	60 00	28 00	38-10	7-6	1	-	-	-	-	-	-
Cambridge . . . . .	14	175	96	82	192 73	62 40	293-13	10-3	-	1	12	504	Taxation,	10-3	2,800
Carlisle . . . . .	-	7	3	2	-	26 00	32	8	-	-	-	-	-	-	-
Chelmsford . . . . .	2	14	9	8	71 00	31 91	102-13	7-18	2	-	1	58	Taxation,	8-10	765
Concord . . . . .	2	23	9	5	123 46	45 32	119-5	9-2	-	1	3	64	Taxation,	9-9	1,500
Dracut . . . . .	2	10	5	9	32 00	32 00	87	8-15	-	-	-	-	-	-	-
Dunstable . . . . .	1	10	-	-	24 00	23 00	31-5	6-5	1	-	-	-	-	-	-
Everett . . . . .	2	18	7	5	112 00	40 00	152	10-10	-	1	2	54	Taxation,	10-10	1,210
Framingham . . . . .	2	30	15	13	130 00	44 41	210-18	9-2	-	2	5	128	Taxation,	10	1,400
Groton . . . . .	5	18	6	4	44 53	37 47	112-5	8	-	-	-	-	-	-	1,200
Holliston . . . . .	1	17	1	-	100 00	32 80	125-5	8-17	1	1	2	49	Taxation,	9-15	975
Hopkinton . . . . .	3	32	9	4	91 40	38 20	182	7	-	1	2	55	Taxation,	9-5	1,000
Hudson . . . . .	3	20	5	2	86 66	37 28	115-5	8-8	-	1	2	55	Taxation,	10	900
Lexington . . . . .	3	11	3	1	100 00	44 77	110	10	-	1	2	67	Taxation,	10	1,250

## SCHOOL-RETURNS.

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	2	4	-	61 78	32 68	43-10	8-14	-	1	1	41	Taxation, Not tax,	8-10	525
Lincoln	.	4	-	1	32 00	32 53	43-10	-	1	1	26	Taxation,	3	120
Littleton	.	9	1	34	155 40	53 37	57-15	-	1	1	490	Taxation,	9-18	1,960
Lowell	.	160	58	10	127 00	50 00	772-19	-	1	11	179	Taxation,	10	1,775
Malden	.	59	15	7	89 66	35 00	421-10	-	1	5	158	Taxation,	9	1,200
Marlborough	.	46	9	2	50 33	40 00	282-5	-	1	1	58	Taxation,	9-10	750
Maynard	.	8	4	4	134 00	49 00	72	-	1	1	102	Taxation,	10	2,050
Medford	.	27	4	8	150 00	47 70	216	-	1	3	116	Taxation,	10	1,500
Melrose	.	18	8	23	116 33	37 74	10	-	1	3	92	Taxation,	10	1,200
Natick	.	40	23	16	158 74	65 82	274-15	-	1	14	282	Taxation,	10	2,700
Newton	.	72	21	6	31 00	51	640	-	1	1	20	Taxation,	8-10	306
North Reading	.	7	6	2	28 00	32 00	8-10	-	1	1	139	Taxation,	-	-
Pepperell	.	8	2	4	87 80	38 00	73-15	-	1	2	38	Taxation,	9-10	1,400
Reading	.	16	4	2	1	30 89	8-4	-	1	1	338	Part tax,	9-5	*
Sherborn	.	8	2	1	12	50-12	9-10	-	1	1	37	Taxation,	10	2,200
Shirley	.	12	1	1	39 44	28 33	8-8	-	1	1	87	Taxation,	9-9	1,494
Somerville	.	83	12	12	163 75	57 65	7-11	-	1	6	42	Part tax,	8	420
Stoneman	.	22	4	4	158 00	45 40	10	-	1	1	338	Taxation,	10	2,200
Stow	.	8	2	4	40 00	38 00	165-16	-	1	1	87	Taxation,	9-9	1,494
Sudbury	.	9	1	1	40 00	37 00	8-15	-	1	1	42	Part tax,	8	420
Tewksbury	.	9	1	2	33 43	64-15	8	-	1	1	-	-	-	-
Townsend	.	13	3	3	34 00	27 00	9-5	-	1	1	22	Taxation,	9	510
Tyngsborough	.	11	4	4	56 00	34 00	6	-	1	1	25	Part tax,	3	168
Wakefield	.	18	5	2	85 00	41 14	6-9	-	1	3	68	Taxation,	10	1,000
Waltham	.	46	6	4	128 00	46 84	10	-	1	4	99	Taxation,	10	1,600
Watertown	.	18	4	4	120 00	44 72	9-13	-	1	3	90	Taxation,	10	1,600
Wayland	.	8	2	2	80 00	35 50	10	-	1	3	90	Taxation,	10	-
Westford	.	12	1	1	24 00	27 55	7-15	-	1	1	-	-	-	-
Weston	.	8	2	2	100 00	34 25	8-19	-	1	1	39	Taxation,	9	900
Wilmington	.	6	2	2	48 00	30 00	9	-	1	1	32	Taxation,	9-10	456
Winchester	.	19	3	3	130 00	38 93	49-10	-	1	3	64	Taxation,	10-6	1,600
Woburn	.	42	1	1	104 00	42 00	133-2	-	1	3	143	Taxation,	10	1,800
Totals	.	1,318	401	316	\$88 01	\$38 02	420	7	39	115	4,012	-	-	\$47,129

\* United with Sawin Academy.

## BOARD OF EDUCATION.

## MIDDLESEX COUNTY — CONTINUED.

TOWNS.	Amount paid for all school purposes from money raised by taxation.	Amount raised by taxes for schools, including wages of teachers, board, fuel, care of fires and school-rooms, for the school-year 1879-80.	Expense of supervision by school-committee.	Salary of Superintendent of Public Schools.	Expenses of printing reports, etc.	Expense of sundries, — books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount of voluntary contributions for Public Schools.
Acton .	\$2,855 61	\$2,500 00	\$96 00	\$96 00	\$30 00	—	—	\$63 34	\$172 27	—
Arlington .	16,603 78	17,000 00	—	—	—	\$473 41	—	574 58	363 12	—
Ashby .	2,036 92	1,550 00	75 00	75 00	20 00	96 55	—	128 21	64 40	—
Ashland .	3,750 00	3,500 00	125 00	—	7 00	102 00	—	—	250 00	—
Ayer .	3,641 07	3,500 00	150 00	—	15 00	90 40	—	—	96 26	—
Bedford .	1,901 48	1,800 00	50 00	—	15 00	36 48	—	—	111 24	—
Belmont .	7,842 18	6,500 00	287 50	—	17 50	65 00	—	841 45	91 00	—
Billerica .	3,461 98	2,800 00	155 00	—	52 84	—	—	—	—	—
Boxborough .	799 60	600 59	38 62	—	11 50	3 76	—	—	16 33	—
Burlington .	1,000 00	1,000 00	50 00	—	13 00	35 13	—	—	21 05	—
Cambridge .	161,082 58	145,258 50	3,000 00	2,700 00	216 00	5,508 16	—	1,514 72	5,585 20	—
Carlisle .	700 00	700 00	45 00	—	20 00	—	—	—	50 00	—
Chelmsford .	4,900 57	4,500 00	190 74	—	36 00	40 85	—	—	89 09	—
Concord .	8,628 69	8,040 34	200 00	200 00	—	25 00	—	200 00	427 98	—
Dracut .	3,215 00	2,800 00	150 00	—	15 00	150 00	—	—	100 00	—
Dunstable .	603 60	600 00	26 00	—	10 95	10 21	—	—	—	—
Everett .	10,000 00	9,400 00	150 00	—	5 00	729 09	—	105 82	269 89	\$77 40
Frammingham .	15,700 00	14,000 00	650 00	650 00	50 00	550 00	—	—	500 00	117 60
Groton .	5,200 00	4,700 00	200 00	—	25 60	100 00	—	—	100 00	—
Holliston .	6,470 45	5,800 00	333 33	333 33	41 50	105 76	\$2,587 50	308 16	144 60	—
Hopkinton .	10,319 03	8,000 00	250 00	—	45 00	—	—	2,024 03	—	—
Hudson .	9,756 66	6,200 00	212 50	—	34 00	148 93	2,300 00	650 00	211 13	—
Lexington .	8,683 02	8,200 00	300 00	—	23 10	55 26	—	—	377 08	—

## SCHOOL-RETURNS.

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Lincoln .	2,300 09	1,700 00	25 00	-	17 50	34 73	-	-	112 53	-
Littleton .	2,285 21	1,897 95	68 00	68 00	35 00	15 27	-	241 49	-	41 35
Lowell .	125,429 69	111,086 74	2,250 00	2,250 00	459 44	3,750 00	10,476 94	1,186 74	6,940 79	-
Malden .	34,837 75	31,500 00	1,360 00	-	-	514 54	-	-	1,529 00	-
Marlborough .	18,692 95	15,000 00	750 00	-	75 00	1,866 97	-	800 00	199 68	-
Maynard .	3,330 00	3,000 00	65 00	-	15 00	-	-	-	120 69	-
Medford .	32,035 00	23,705 00	1,150 00	800 00	50 00	450 00	6,000 00	850 00	820 00	-
Melrose .	13,705 13	12,500 00	325 00	-	15 00	535 87	-	150 00	874 87	-
Natick .	16,500 00	16,000 00	310 00	-	-	650 00	-	-	550 00	-
Newton .	82,314 39	67,995 57	3,000 00	2,700 00	325 00	6,488 82	-	260 96	4,244 04	-
North Reading .	1,987 62	1,600 00	84 25	-	20 00	85 22	-	-	91 89	-
Pepperell .	2,615 84	2,400 00	100 00	100 00	28 00	257 84	-	-	87 84	-
Reading .	8,480 83	7,500 00	275 00	-	50 00	22 60	-	198 63	436 04	-
Sherborn .	2,014 66	1,600 00	147 75	-	25 00	20 00	-	-	20 68	-
Shirley .	1,978 73	1,800 00	131 13	-	6 00	26 00	-	-	196 12	-
Somerville .	84,420 74	70,155 27	1,800 00	1,800 00	69 00	1,636 65	-	-	7,980 97	-
Stoneham .	12,617 19	11,600 00	400 00	-	5 00	713 95	-	-	364 52	-
Stow .	1,833 43	1,600 00	75 00	75 00	25 00	65 75	-	80 25	33 67	-
Sudbury .	2,491 40	2,000 00	150 00	-	24 00	60 00	-	-	110 00	-
Tewksbury .	2,516 48	2,100 00	150 00	-	21 00	82 67	-	-	162 81	-
Townsend .	3,266 00	3,100 00	135 00	-	30 00	50 00	-	-	15 00	20 00
Tyngsborough, .	1,058 25	1,150 00	62 25	-	25 00	20 00	-	-	-	-
Wakefield .	11,366 10	10,500 00	200 00	-	65 00	455 49	-	-	250 00	-
Waltham .	25,945 93	31,467 00	925 00	600 00	45 00	622 63	-	406 88	994 60	-
Watertown .	18,435 90	15,359 25	300 00	-	80 00	1,342 05	-	-	764 32	-
Wayland .	3,638 17	3,500 00	95 00	-	10 00	63 95	-	-	160 95	-
Westford .	3,333 80	3,000 00	150 00	-	32 00	50 49	-	-	275 88	-
Weston .	3,980 00	3,725 00	210 00	-	-	215 00	-	-	145 00	10 00
Wilmington .	1,906 00	1,550 00	50 00	-	6 00	-	-	-	-	-
Winchester .	11,888 62	11,000 00	350 00	-	-	550 38	-	362 00	567 34	-
Woburn .	27,863 04	25,000 00	800 00	800 00	20 00	902 02	-	-	946 73	-
Totals .	\$854,221 15	\$845,041 21	\$22,628 07	\$13,247 33	\$2,281 93	\$29,818 88	\$21,364 44	\$10,947 26	\$38,049 60	\$265 75



## MIDDLESEX COUNTY — CONCLUDED.

TOWNS.	ACADEMIES AND PRIVATE SCHOOLS.										
	Amount of local funds the income of which can be appropriated only for the support of schools and academies.	Income of local funds.	Income of surplus revenue and other funds, including the dog tax, used at the option of the town.	Number of Academies.	Whole No. attending for the year.	Amount of tuition paid.	No. of Private Schools.	Whole No. attending for the year.	Estimated amount of tuition.	Town's share of school-fund payable Jan. 25, 1880.	How much of said fund was used for apparatus and books of reference.
Acton . . . . .	—	—	\$203 49	—	—	—	—	—	—	\$177 63	—
Arlington . . . . .	\$5,384 00	\$321 24	—	—	—	—	—	—	—	179 33	—
Ashby . . . . .	—	—	104 08	—	—	—	—	—	—	214 95	—
Ashland . . . . .	—	—	242 84	—	—	—	—	—	—	187 93	—
Ayer . . . . .	—	—	—	—	—	—	—	—	—	186 64	—
Bedford . . . . .	—	—	—	—	—	—	—	—	—	215 94	—
Belmont . . . . .	—	—	—	—	—	—	3	28	\$900 00	139 71	\$18 50
Billerica . . . . .	21,000 00	1,260 00	154 64	1	38	\$254 00	1	15	—	188 82	—
Boxborough . . . . .	—	—	47 31	—	—	—	—	—	—	204 16	—
Burlington . . . . .	—	—	—	—	—	—	—	—	—	210 50	—
Cambridge . . . . .	10,000 00	783 00	—	—	—	—	20	1,610	19,800 00	—	—
Cambridge . . . . .	500 00	30 00	—	—	—	—	—	—	—	—	—
Carlisle . . . . .	—	—	—	—	—	—	—	—	—	—	—
Chelmsford . . . . .	3,000 00	77 00	226 86	—	—	—	—	—	—	207 03	6 25
Concord . . . . .	—	—	—	—	—	—	—	—	—	191 70	5 25
Dracut . . . . .	—	—	122 30	—	—	—	3	48	1,236 00	194 87	—
Dunstable . . . . .	—	—	—	—	—	—	—	—	—	225 35	—
Everett . . . . .	—	—	401 33	—	—	—	—	—	—	207 43	13 89
Framingham . . . . .	1,258 94	75 54	338 98	—	—	—	1	27	677 50	176 06	25 19
Groton . . . . .	35,620 00	1,962 15	—	1	101	1,582 00	3	50	610 00	197 46	—
Holliston . . . . .	—	—	146 63	—	—	—	—	—	—	182 48	—
Hopkinton . . . . .	—	—	—	—	—	—	1	10	175 00	210 41	—
Hudson . . . . .	5,773 60	325 00	376 77	—	—	—	—	—	—	258 05	—
Lexington . . . . .	—	—	—	—	—	—	1	20	1,000 00	223 69	—
Lexington . . . . .	—	—	—	—	—	—	—	—	—	194 47	—

## SCHOOL-RETURNS.

xlix

Lincoln	1,209 21	65 54	-	-	-	-	-	-	-	214 56	4 00
Littleton	2,513 03	150 78	76 95	-	-	-	-	-	-	218 32	-
Lowell	-	-	-	1	90	-	-	5	700	-	-
Malden	-	-	-	-	-	-	-	1	12	-	-
Marlborough	2,660 75	153 03	-	-	-	-	-	5	75	310 66	517 54
Maynard	-	-	128 25	-	-	-	-	-	-	191 08	19 00
Medford	-	-	-	-	-	-	-	-	-	121 33	-
Melrose	-	-	-	-	-	-	-	3	20	179 93	-
Medford	-	-	-	-	-	-	-	1	40	260 05	65 00
Natick	-	-	-	-	-	-	-	6	146	-	-
Newton	-	-	1,014 30	2	175	11,200 00	-	-	-	216 14	-
North Reading	-	-	127 00	-	-	-	-	-	-	184 96	11 50
Pepperell	-	-	-	-	-	-	-	1	50	197 05	-
Reading	-	-	-	-	-	-	-	2	15	216 14	-
Sherborn	19,000 00	1,100 00	52 39	1	38	268 00	-	1	9	218 12	45 00
Shirley	10,253 18	-	110 01	-	-	-	-	-	-	-	-
Somerville	-	-	-	-	-	-	-	-	-	236 26	-
Stonham	-	-	-	-	-	-	-	-	-	220 90	-
Stow	9,600 00	519 00	109 96	-	-	-	-	-	-	219 81	9 00
Sudbury	300 00	18 00	216 00	-	-	-	-	1	10	218 92	-
Tewksbury	-	-	-	-	-	-	-	-	-	181 79	-
Townsend	-	-	-	-	-	-	-	4	66	209 60	15 00
Tyngsborough	2,500 00	134 33	-	-	-	-	-	-	-	191 42	-
Wakefield	-	-	-	1	60	2,600 00	-	-	-	197 08	-
Waltham	-	-	270 78	-	-	-	-	1	12	82 60	-
Watertown	-	-	-	-	-	-	-	-	-	187 83	-
Wayland	200 00	12 00	139 35	-	-	-	-	-	-	230 60	-
Westford	31,066 38	1,930 48	-	1	60	648 00	-	-	-	170 60	-
Weston	-	-	-	-	-	-	-	-	-	216 93	-
Wilmington	-	-	-	-	-	-	-	-	-	152 89	100 00
Winchester	-	-	-	-	-	-	-	1	12	224 52	-
Woburn	12,000 00	-	-	-	-	-	-	1	35	-	-
Totals	\$173,839 09	\$8,917 09	\$4,610 22	8	562	\$17,352 00	66	3,010	\$36,414 50	\$9,847 70	\$855 12

## NANTUCKET COUNTY.

TOWNS.	Population—State Census, 1880.	Valuation—1880.	No. of Public Schools.	No. of persons in town May 1, 1879, between 5 and 15 years of age.	No. of persons in town May 1, 1879, between 8 and 14 years of age.	No. of different pupils in the Pub- lic Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average No. belonging to all the Schools.	Avg attendance in all the Pub. Schools dur- ing the school-year.	The per cent of attend- ance based upon the average No. belonging.	No. of teachers required by the Public Schools.
Nantucket . .	3,726	\$2,103,926 00	11	571	314	450	—	32	272	427	378	.88	12

## NORFOLK COUNTY.

Bellingham . .	1,223	\$507,636 00	9	212	165	247	1	15	161	201	186	.92	9
Braintree . .	3,855	2,913,050 00	17	735	493	827	8	45	483	652	571	.87	18
Brookline . .	8,053	22,869,700 00	29	1,352	—	1,473	—	154	—	1,061	971	.92	36
Canton . .	4,523	3,087,814 00	18	942	527	979	3	57	554	746	688	.92	22
Cohasset . .	2,182	2,611,383 00	12	419	218	456	1	33	258	373	333	.89	13
Dedham . .	6,224	5,794,338 00	29	1,115	695	1,238	—	95	686	1,019	909	.89	30
Dover . .	653	460,515 00	4	105	59	119	3	8	69	95	75	.77	4
Foxborough . .	2,951	1,383,847 00	12	466	279	527	2	67	318	431	374	.87	13
Franklin . .	4,051	1,736,870 00	15	637	407	655	9	45	393	560	500	.89	15
Holbrook . .	2,132	1,064,865 00	9	403	—	480	4	17	300	393	362	.92	10
Hyde Park . .	7,090	4,123,490 00	29	1,383	888	1,614	17	124	926	1,236	1,108	.88	29
Medfield . .	1,365	1,064,850 00	5	207	125	210	—	20	121	191	163	.85	5
Medway . .	3,955	1,550,375 00	18	771	464	923	7	109	601	732	679	.92	20
Milton . .	3,206	9,766,950 00	14	497	—	550	—	37	285	456	416	.91	17
Needham . .	5,254	4,356,267 00	25	902	474	857	21	56	543	754	694	.92	25
Norfolk . .	930	398,538 00	6	162	92	185	6	8	88	139	121	.87	6
Norwood . .	2,345	1,795,428 00	9	420	252	433	—	34	267	389	332	.85	11

Quincy	.	10,529	7,528,096 00	37	1,704	1,209	1,910	-	108	1,257	1,551	1,467	.95	42
Randolph	.	4,027	2,079,040 00	18	722	269	804	18	69	455	715	630	.88	19
Sharon	.	1,492	1,051,014 00	6	237	143	256	2	29	162	208	185	.89	6
Stoughton	.	4,875	2,283,625 00	22	985	650	1,043	12	63	625	922	836	.91	24
Walpole	.	2,494	1,337,467 00	10	371	-	447	1	43	259	361	281	.78	11
Weymouth	.	10,571	5,494,079 00	47	2,075	1,230	2,179	-	121	1,225	1,985	1,770	.88	52
Wrentham	.	2,482	1,206,327 00	12	419	263	461	4	53	275	391	364	.92	13
Totals	.		\$86,465,594 00	412	17,941	8,902	18,876	119	1,410	10,311	15,564	14,015	.90	450

NANTUCKET COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	Av'ge wages per month of male teachers in Public Schools.	Av'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than six months each.	HIGH SCHOOLS.					Salary of Principal.
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	Length. Months.	
Nantucket .	1	11	—	—	\$87 50	\$23 32	95-15	8-16	2	1	2	60	Taxation,	10-5	\$900 00

NORFOLK COUNTY — CONTINUED.

Bellingham	3	9	1	1	\$37 05	\$29 57	69-10	7-15	—	1	1	26	Taxation,	7-15	\$339 34
Braintree	5	16	1	3	62 75	32 71	171	10	—	1	2	56	Taxation,	10	1,250 00
Brookline	4	32	13	13	201 00	63 00	290	10	—	1	4	112	Taxation,	10	2,700 00
Canton	3	19	2	2	93 33	37 35	180	10	—	1	2	77	Taxation,	10	1,200 00
Cohasset	2	12	2	2	55 50	37 87	118-5	9-17	—	1	2	116	Taxation,	10	1,000 00
Dedham	6	27	5	6	96 66	44 23	290	10	—	1	3	88	Taxation,	10	1,500 00
Dover	3	8	3	3	32 00	32 00	35-5	8-16	—	—	—	—	—	—	—
Foxborough	1	15	—	1	111 12	35 84	104-15	8-15	—	1	2	60	Taxation,	9	1,000 00
Franklin	6	14	2	2	54 00	35 71	127-8	8-10	—	1	1	50	Taxation,	9-10	865 00
Holbrook	1	11	5	5	100 00	36 66	90	10	—	1	2	47	Taxation,	10	1,000 00
Hyde Park	6	27	5	5	119 70	44 00	253	9-15	—	1	3	118	Taxation,	10	1,450 00
Medfield	4	4	5	5	47 33	36 00	47-5	9-10	—	1	1	47	Taxation,	9-10	700 00
Medway	8	19	4	5	70 58	32 06	127	7-2	—	1	2	74	Taxation,	9-10	916 66
Milton	7	19	8	8	125 00	50 00	140	10	—	1	2	52	Taxation,	10	1,700 00
Needham	3	25	6	6	120 00	44 69	229	9-3	—	1	2	85	Taxation,	10	1,200 00
Norfolk	—	9	1	1	—	33 37	49-10	8-5	—	—	—	—	—	—	—
Norwood	1	12	3	4	117 00	41 00	85-7	9-10	—	1	2	59	Taxation,	9-10	1,111 50

	10	49	18	15	113 00	45 00	380	10	-	1	3	145	Taxation, Part tax, Taxation, Taxation, Taxation, Taxation, Taxation,	10 9-15 10 9 10-10 9-15 9	1,400 00 1,200 00 750 00 1,200 00 800 00 { 1,200 00 1,200 00 800 00
Quincy . . .	3	17	7	7	103 70	54 66	117-10	9-12	-	1	2	60			
Randolph . .	1	7	5	5	75 00	34 53	55	9-3	-	1	1	53			
Sharon . . .	5	22	5	4	75 67	34 22	193-10	8-15	-	1	2	85			
Stoughton . .	2	16	2	2	76 19	32 60	88-15	9-10	-	1	1	23			
Walpole . . .															
Weymouth . .	12	50	8	7	85 58	34 37	434-19	9-11	-	2	4	140			
Wrentham . .	2	14	1	1	97 22	33 77	93	7-15	-	1	1	39			
Totals . . .	98	453	120	103	\$89 97	\$38 97	3969-19	9-12	-	23	45	1,612	-	-	\$26,482 50



## NANTUCKET COUNTY — CONTINUED.

TOWNS.	Amount paid for all school purposes from money raised by taxation.	Amount raised by taxes for Schools, including wages of teachers, board, fuel, care of fires and school-rooms, for the school-year 1879-80.	Expense of supervision by school-committee.	Salary of Superintendent of Public Schools.	Expenses of printing reports, etc.	Expense of sundries, — books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount of voluntary contributions for Public Schools.
Nantucket	\$4,426 44	\$3,964 50	\$100 00	—	\$29 75	\$376 92	—	—	\$68 75	—

## NORFOLK COUNTY — CONTINUED.

Bellingham	\$1,944 80	\$1,800 00	\$85 00	—	\$21 50	\$15 34	—	\$91 58	\$53 22	—
Braintree	8,908 38	6,800 00	310 00	—	10 00	160 00	—	1,400 29	228 09	—
Brookline	44,095 90	36,200 00	2,000 00	\$2,000 00	—	1,500 00	\$4,777 26	3,100 00	—	—
Canton	13,074 68	10,450 00	1,300 00	1,300 00	64 60	724 24	—	—	897 95	—
Cohasset	5,941 72	5,000 00	265 00	200 00	35 00	184 03	—	—	221 50	—
Dedham	23,768 40	18,581 77	450 00	—	40 00	562 19	—	101 75	1,117 67	—
Dover	1,184 00	1,100 00	30 00	—	15 00	81 84	—	119 62	45 87	—
Foxborough	5,433 48	5,000 00	197 00	—	25 00	185 60	—	—	222 88	—
Franklin	5,728 59	6,100 00	440 00	—	36 25	205 10	—	396 48	433 36	—
Holbrook	5,000 00	4,700 00	200 00	—	—	127 00	3,715 26	300 00	—	—
Hyde Park	19,800 00	17,800 00	400 00	—	75 00	807 00	—	150 00	1,002 00	—
Medfield	2,586 22	2,200 00	100 00	—	15 00	40 83	—	38 22	72 15	—
Medway	8,100 67	6,000 00	264 50	—	24 00	753 07	—	377 07	681 33	—
Milton	21,581 04	12,885 57	1,554 10	900 00	—	980 61	5,406 39	—	754 37	—
Needham	13,050 00	12,800 00	540 00	—	30 00	400 00	—	100 00	650 00	—
Norfolk	1,500 00	1,500 00	98 65	—	15 00	60 00	—	60 00	25 00	—
Norwood	5,463 49	5,750 00	120 00	—	22 00	136 15	—	54 41	128 74	—

Quincy .	42,422 75	26,480 00	2,000 00	2,000 00	2,000 00	—	2,395 83	—	8,868 15	2,320 67	—
Randolph .	10,886 65	8,531 24	367 50	367 50	—	—	134 82	—	646 32	195 00	—
Sharon .	3,163 93	2,300 00	200 00	200 00	200 00	25 75	200 85	—	—	437 33	—
Stoughton .	12,000 00	12,000 00	368 50	368 50	100 00	50 00	100 00	—	1,086 00	430 00	—
Walpole .	7,496 89	5,000 00	165 00	165 00	—	—	335 74	—	970 67	112 43	\$5 00
Weymouth .	27,669 48	24,000 00	697 95	697 95	457 96	100 00	708 37	—	660 52	1,564 89	—
Wrentham .	5,682 58	5,000 00	294 81	294 81	—	60 00	211 14	—	111 35	65 28	—
Totals .	\$296,483 65	\$239,978 58	\$12,448 01	\$7,157 96	\$663 10	\$11,009 75	\$13,898 91	\$18,632 43	\$11,659 73	\$5 00	

## NANTUCKET COUNTY — CONCLUDED.

TOWNS.	Amount of local funds the income of which can be appropriated only for the support of schools and acad- emies.	Income of local funds.	Income of surplus rev- enue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school-fund pay- able Jan. 25, 1880.	How much of said fund was used for appara- tus and books of reference.
				Number of Aca- demies.	Whole No. attend- ing for the year.	Amount of In- tuition paid.	No. of Private Schools.	Whole No. attend- ing for the year.	Estimated amt. of tuition.		
Nantucket . .	\$38,000 00	\$2,080 00	—	1	75	\$600 00	—	—	—	\$203 43	\$50 00

## NORFOLK COUNTY — CONCLUDED.

Bellingham . .	\$418 16	\$25 09	\$272 04	1	—	—	—	—	—	\$224 76	\$15 18
Braintree . .	4,500 00	300 00	417 33	—	62	\$675 00	—	—	—	220 82	—
Brookline . .	—	—	—	—	—	—	3	—	—	—	—
Canton . .	—	—	441 55	—	—	—	—	—	—	146 37	—
Cohasset . .	1,000 00	40 40	242 50	—	—	—	—	—	—	191 80	68 94
Dedham . .	1,000 00	60 00	564 45	—	—	—	3	40	\$1,400 00	108 94	—
Dover . .	—	—	84 00	—	—	—	—	—	—	210 00	—
Foxborough . .	—	—	265 54	—	—	—	—	—	—	196 15	—
Franklin . .	100,000 00	6,000 00	—	1	143	1,500 00	2	60	350 00	212 39	—
Holbrook . .	—	—	132 64	—	—	—	—	—	—	187 73	—
Hyde Park . .	—	—	—	—	—	—	2	16	300 00	215 18	—
Medfield . .	3,760 00	209 23	—	—	—	—	—	—	—	168 91	—
Medway . .	100 00	6 00	286 76	—	—	—	—	—	—	225 57	10 00
Milton . .	—	—	—	—	—	—	—	—	—	45 56	—
Needham . .	1,000 00	—	372 55	—	—	—	1	20	600 00	189 44	—
Norfolk . .	—	—	83 52	—	—	—	—	—	—	217 13	50 00
Norwood . .	—	—	—	—	—	—	1	11	200 00	191 80	30 00

Quincy . . . . .	-	1	14	-	1	40	1,600 00	168 77	-
Randolph . . . . .	12,250 00	-	-	-	1	15	100 00	217 14	-
Sharon . . . . .	2,360 00	-	-	-	-	-	-	173 67	-
Stoughton . . . . .	-	-	-	-	-	-	-	244 79	33 75
Walpole . . . . .	-	-	-	-	1	9	60 00	187 83	34 43
Weymouth . . . . .	10,000 00	-	-	-	2	40	600 00	199 27	-
Wrentham . . . . .	1,818 26	-	-	-	-	-	-	191 01	-
Totals . . . . .	\$138,206 42	3	219	\$2,175 00	17	211	\$5,210 00	\$4,335 03	\$242 30

## PLYMOUTH COUNTY.

TOWNS.	Population — State Census, 1880.	Valuation — 1880.	No. of Public Schools.	No. of persons in town May 1, 1879, between 5 and 15 years of age.	No. of persons in town May 1, 1879, between 8 and 14 years of age.	No. of different pupils of all ages in the Pub- lic Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average No. belonging to all the Schools.	Average attendance in all the Pub. Schools dur- ing the school-year.	The per cent of attend- ance based upon the average No. belonging.	No. of teachers required by the Public Schools.
Abington . . . . .	3,697	\$1,749,889 00	17	615	—	717	9	76	423	619	562	.90	19
Bridgewater . . . . .	3,620	1,988,430 00	19	687	312	762	15	—	368	612	527	.86	21
Brockton . . . . .	13,608	6,252,413 00	41	2,107	—	2,304	6	159	1,374	1,919	1,795	.93	43
Carver . . . . .	1,039	510,615 00	8	217	107	221	4	22	152	169	149	.88	8
Duxbury . . . . .	2,196	1,052,577 00	10	350	255	365	5	30	246	336	308	.91	11
East Bridgewater . . . . .	2,710	1,243,490 00	13	385	253	531	12	54	254	441	405	.92	15
Halifax . . . . .	542	270,128 00	4	83	63	81	2	5	56	70	65	.92	4
Hanover . . . . .	1,897	995,750 00	9	325	230	320	4	14	200	287	241	.83	9
Hanson . . . . .	1,309	503,016 00	7	230	148	229	7	11	126	162	142	.87	7
Hingham . . . . .	4,485	3,182,089 00	16	705	—	770	5	66	—	717	579	.81	18
Hull . . . . .	383	897,759 00	2	56	27	56	—	—	24	50	44	.87	2
Kingston . . . . .	1,524	1,485,177 00	7	247	160	261	4	23	160	233	200	.86	7
Lakeville . . . . .	1,008	459,475 00	10	210	164	180	6	15	130	173	126	.73	10
Marion . . . . .	958	450,040 00	6	150	89	165	—	17	89	138	119	.86	6
Marshfield . . . . .	1,785	1,022,312 00	10	265	187	281	2	28	184	235	201	.85	10
Mattapoisett . . . . .	1,365	1,173,162 00	6	192	187	199	—	35	84	188	152	.81	7
Middleborough . . . . .	5,237	2,613,375 00	23	885	615	1,004	9	100	607	770	642	.84	26
Pembroke . . . . .	1,405	576,225 00	8	254	160	268	3	13	166	203	175	.86	8
Plymouth . . . . .	7,094	4,232,350 00	29	1,138	650	1,234	—	45	650	1,085	943	.87	33
Plympton . . . . .	694	287,407 00	5	122	76	120	2	10	76	107	91	.85	5
Rochester . . . . .	1,043	456,985 00	6	197	103	204	1	25	103	182	130	.71	6
Rockland . . . . .	4,553	2,023,050 00	18	960	581	1,053	8	92	648	921	821	.89	19

## SUFFOLK COUNTY.

Scituate . . . . .	2,466	1,284,443 00	13	521	308	507	16	26	251	411	363	.89	13
South Abington . . . . .	1,820	2,042,920 00	10	503	353	521	7	33	286	455	416	.91	11
South Scituate . . . . .	3,024	884,518 00	10	320	199	332	4	14	202	264	231	.88	10
Wareham . . . . .	2,897	1,088,039 00	15	550	450	632	17	42	344	521	463	.89	16
West Bridgewater . . . . .	1,665	933,482 00	10	329	196	301	9	28	192	260	208	.80	10
Totals . . . . .	74,024	\$39,659,107 00	332	12,603	5,746	13,618	157	1,035	7,402	11,528	10,098	.87	354

Boston . . . . .	362,535	\$639,462,495 00	174	64,766	-	56,667	-	4,591	-	50,700	45,496	.89	1,112
Chelsea . . . . .	21,785	15,419,499 00	60	3,461	2,122	3,969	-	262	1,887	3,078	2,815	.91	68
Revere . . . . .	2,263	2,105,115 00	8	378	260	359	2	30	225	327	310	.95	8
Winthrop . . . . .	1,043	1,233,512 00	4	126	79	143	-	9	72	116	90	.77	4
Totals . . . . .	387,626	\$658,220,621 00	246	68,731	2,461	61,138	2	4,892	2,184	54,221	48,711	.89	1,192



## PLYMOUTH COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	A'v'ge wages per month of male teachers in Public Schools.	A'v'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than six months each.	HIGH SCHOOLS.						No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	LENGTH.		Salary of Principal.
										Months.	Days.											
Abington . . .	2	21	3	-	\$95 00	\$33 35	162-3	9-15	-	2	4	76	Taxation,	10	{	\$1,000 00						
Bridgewater . .	5	23	22	19	72 00	32 00	171	9	-	1	3	104	Taxation,	9	9	900 00						
Brockton . . .	8	37	22	18	80 00	39 50	394	9-14	-	1	3	111	Taxation,	10	10	1,050 00						
Carver . . .	4	8	1	-	28 50	26 00	63-5	7-18	-	-	-	-	-	-	-	1,700 00						
Duxbury . . .	3	11	1	1	52 00	32 90	91	9-2	-	1	2	50	Part tax,	10	10	1,000 00						
East Bridgewater,	3	21	10	10	74 50	28 27	118	9-2	-	1	2	62	Taxation,	10	10	1,050 00						
Halifax . . .	-	4	1	1	-	24 00	28-14	7-3	-	-	-	-	-	-	-	-						
Hanover . . .	1	10	2	-	64 80	28 10	81	9	-	1	1	47	Taxation,	9	9	583 20						
Hanson . . .	4	7	3	3	40 00	24 00	58-15	8-8	-	-	-	-	-	-	-	-						
Hingham . . .	5	13	8	5	76 00	55 00	160	10	-	1	2	65	Taxation,	10	10	1,600 00						
Hull . . .	-	2	-	-	-	36 00	18	9	-	-	-	-	-	-	-	-						
Kingston . . .	1	10	4	2	120 00	36 67	64-15	9-5	-	1	1	39	Taxation,	9-5	9-5	1,110 00						
Lakeville . . .	2	11	4	2	26 00	24 00	80	8	-	-	-	-	-	-	-	-						
Marion . . .	2	5	2	1	39 50	23 80	46-10	7-15	-	-	-	-	-	-	-	-						
Marshfield . .	1	12	4	4	24 00	28 00	91-10	9-10	-	-	-	-	-	-	-	-						
Mattapoisett . .	2	7	2	2	52 50	34 47	61	8-15	-	1	1	29	Part tax,	9	9	600 00						
Middleborough .	3	32	4	2	76 74	31 77	194	8-9	-	1	2	82	Taxation,	9-10	9-10	1,100 00						
Pembroke . . .	1	8	2	2	28 00	26 00	72	9	-	-	-	-	-	-	-	-						
Plymouth . . .	4	35	10	8	102 50	32 00	290	10	-	1	3	90	Taxation,	10	10	1,500 00						
Plympton . . .	2	6	1	1	31 00	29 25	34-10	7	-	-	-	-	-	-	-	-						
Rochester . . .	2	9	2	2	28 00	28 00	46	7-4	-	-	-	-	-	-	-	-						
Rockland . . .	2	17	2	1	85 50	35 20	160-12	8-18	-	1	2	57	Taxation,	10	10	1,200 00						

Scituate . . . . .	2	15	3	3	59 48	24 17	118-10	9-2	—	1	1	41	Taxation, Taxation,	9-10	750 00
South Abington . . . . .	1	15	4	2	120 00	34 00	89	9	—	1	2	37	—	10	1,200 00
South Scituate . . . . .	6	9	2	1	36 00	28 44	87-10	8-15	—	—	—	—	—	—	—
Wareham . . . . .	2	14	2	1	75 00	29 00	121-10	8-2	—	1	2	63	Taxation,	9-10	1,000 00
West Bridgewater . . . . .	3	10	7	6	40 81	35-15	80	8	—	—	—	—	—	—	—
Totals . . . . .	71	372	128	97	\$61 11	\$31 08	2983-4	9	—	16	31	953	—	—	\$17,343 20

## SUFFOLK COUNTY—CONTINUED.

Boston . . . . .	136	988	550	550	\$218 15	\$60 17	2041	10-1	—	11	93	2,090	Taxation, Taxation,	10	\$34,080 00*
Chelsea . . . . .	5	63	3	16	163 33	53 61	590	10	—	1	5	180	—	10	2,450 00
Revere . . . . .	2	11	4	3	110 00	37 75	75	9-8	—	—	—	—	—	—	—
Winthrop . . . . .	2	8	—	1	48 00	31 56	37	9-5	—	—	—	—	—	—	—
Totals . . . . .	145	1,070	557	570	\$134 87	\$45 77	2743	9-14	—	12	98	2,270	—	—	\$30,530 00

\* 6 at \$3,780 per year; 5 at \$2,880 per year.

PLYMOUTH COUNTY — CONTINUED.

TOWNS.	Amount paid for all school purposes from money raised by taxation.	Amount raised by taxes for schools, including wages of teachers, board, fuel, care of fires and school-rooms, for the school-year 1879-80.	Expense of supervision by school-committee.	Salary of Superintendent of Public Schools.	Expenses of printing reports, etc.	Expense of sundries, — books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount of voluntary contributions for Public Schools.
Abington . . . . .	\$9,274 74	\$8,000 00	\$332 50	—	\$66 80	\$1,271 67	—	—	\$603 92	—
Bridgewater . . . . .	8,100 00	7,300 00	195 50	—	25 00	1,000 00	—	—	50 00	—
Brocton . . . . .	28,240 48	24,740 48	501 29	—	155 00	600 00	—	\$2,700 00	2,127 75	—
Carver . . . . .	1,240 00	1,200 00	79 91	—	19 50	—	—	273 62	54 85	—
Duxbury . . . . .	2,989 00	2,500 00	215 00	—	40 00	65 71	—	194 00	90 00	—
E. Bridgewater, . . . . .	5,739 91	5,000 00	180 34	—	87	300 00	—	—	500 00	—
Halifax . . . . .	560 98	600 00	40 00	—	—	—	\$1,590 25	—	3 15	—
Hanover . . . . .	4,623 00	2,500 00	140 00	—	25 00	166 33	—	23 24	17 34	—
Hanson . . . . .	1,692 04	1,600 00	127 00	—	23 70	580 40	—	2,483 28	281 60	—
Hingham . . . . .	13,843 58	10,083 30	415 00	\$415 00	—	42 12	—	312 86	21 06	—
Hull . . . . .	705 88	500 00	30 00	—	10 00	120 12	—	252 00	55 00	—
Kingston . . . . .	3,850 00	3,450 00	137 50	—	—	10 00	—	—	25 00	—
Lakeville . . . . .	1,614 00	1,464 00	100 00	—	15 00	9 20	—	—	21 22	—
Marion . . . . .	1,394 42	1,200 00	50 00	50 00	14 00	19 19	—	—	140 81	—
Marshfield . . . . .	2,624 16	2,500 00	179 75	—	23 16	39 00	—	696 55	24 99	—
Mattapoisett . . . . .	2,296 19	2,100 00	50 00	—	—	116 56	—	1,671 58	263 10	—
Middleborough, . . . . .	10,953 24	8,500 00	322 00	—	30 00	150 00	—	—	53 51	—
Pembroke . . . . .	2,061 25	1,650 00	116 25	—	105 50	250 00	—	—	800 00	—
Plymouth . . . . .	16,576 00	16,000 00	500 00	500 00	55 00	—	—	—	—	—
Plympton . . . . .	1,266 24	800 00	50 00	—	15 00	—	—	85 16	60 45	—
Rochester . . . . .	1,195 61	1,200 00	85 00	—	—	—	—	—	300 00	—
Rockland . . . . .	8,700 00	7,500 00	280 00	—	—	—	—	—	271 35	—
Scituate . . . . .	3,564 93	3,700 00	180 00	—	46 25	—	—	—	—	—

So. Abington .	5,382 77	4,000 00	372 00	-	-	66 00	-	-	600 00	-
So. Scituate .	2,981 40	2,500 00	105 00	-	30 00	57 45	-	-	287 96	-
Wareham .	5,705 00	4,750 00	165 00	-	20 00	120 00	-	-	650 00	-
W. B'dgewater,	3,016 16	2,800 00	106 94	-	-	56 37	-	-	241 31	-
Totals	\$150,190 98	\$128,137 78	\$5,055 98	\$965 00	\$805 91	\$5,040 12	\$1,590 25	\$8,692 29	\$7,784 37	-

## SUFFOLK COUNTY — CONTINUED.

Boston .	\$1,652,245 29	\$1,269,901 81	\$34,320 00	\$4,200 00	\$900 00	\$179,998 99	\$129,302 45	\$97,827 09	-	-
Chelsea .	54,607 58	44,908 72	1,708 27	1,708 27	99 00	1,408 13	-	1,511 02	\$1,650 50	-
Revere .	4,954 48	5,000 00	145 00	-	-	-	2,852 57	-	220 00	-
Winthrop .	1,416 76	1,300 00	65 00	-	12 00	22 05	-	-	7 90	-
Totals	\$1,713,224 11	\$1,320,210 53	\$36,238 27	\$5,908 27	\$1,011 00	\$181,429 17	\$132,155 02	\$99,338 11	\$1,878 40	-

## PLYMOUTH COUNTY — CONCLUDED.

[illegible]

## SCHOOL-RETURNS.

lxv

South Abington . .	-	-	198 40	-	-	1	12	100 00	194 47	50 00
South Scituate . .	-	-	129 68	-	-	-	-	-	232 58	-
Wareham . .	-	-	313 00	-	-	1	5	100 00	262 29	-
West Bridgewater,	-	-	-	-	-	-	-	-	232 09	-
Totals . .	\$116,444 00	\$6,601 51	\$2,208 04	4	115	\$1,228 00	365	\$8,916 50	\$5,739 98	\$250 90

## SUFFOLK COUNTY — CONCLUDED.

Boston . .	\$46,935 04	\$2,359 03	\$62,174 74	31	6,835	\$102,697 00	80	2,818	-	-
Chelsea . .	-	-	-	-	-	-	2	490	\$2,850 00	-
Revere . .	-	-	103 35	-	-	-	1	10	\$185 55	-
Winthrop . .	-	-	-	-	-	-	-	-	162 47	-
Totals . .	\$46,935 04	\$2,359 03	\$62,278 09	31	6,835	\$102,697 00	83	3,318	\$348 02	-

\* Partridge Academy is recognized as the High School of the town.



## WORCESTER COUNTY.

TOWNS.	Population—State Census, 1880.	Valuation—1880.	No. of Public Schools.	No. of persons in town May 1, 1879, between 5 and 15 years of age.	No. of persons in town May 1, 1879, between 8 and 14 years of age.	No. of different pupils in the schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average No. belonging to all the Schools.	Average attendance in all the Pub. Schools dur- ing the school-year.	The per cent of attend- ance based upon the average No. belonging.	No. of teachers required by the Public Schools.
Ashburnham	1,666	\$916,724 00	13	365	218	408	6	71	205	329	304	.90	14
Athol	4,307	2,261,110 00	19	645	—	707	26	76	—	638	587	.92	20
Auburn	1,317	455,319 00	7	243	—	260	5	24	162	208	169	.81	7
Barre	2,418	1,469,115 00	13	361	227	385	3	49	201	322	296	.92	14
Berlin	977	492,317 00	5	176	108	202	2	17	109	162	155	.95	5
Blackstone	4,908	2,007,400 00	19	959	575	1,165	27	65	689	895	734	.82	22
Bolton	903	492,517 00	7	182	139	240	5	41	139	161	144	.90	7
Boylston	854	508,075 00	7	170	110	182	3	24	103	135	127	.91	7
Brookfield	2,820	1,251,087 00	14	467	264	496	10	47	259	493	453	.92	14
Charlton	1,900	994,920 00	12	340	223	406	9	56	225	308	256	.83	12
Clinton	8,030	4,444,937 00	26	1,579	959	1,521	—	75	1,003	1,284	1,179	.92	27
Dana	736	267,598 00	6	115	65	125	5	5	65	113	105	.92	6
Douglas	2,241	958,384 00	13	416	239	425	14	40	201	347	312	.90	13
Dudley	2,804	917,690 00	14	573	386	573	20	13	346	497	422	.85	14
Fitchburg	12,405	9,132,844 00	47	2,239	1,342	2,466	10	215	2,075	2,016	1,834	.90	50
Gardner	4,988	2,309,878 00	17	758	—	791	—	59	417	645	597	.92	18
Grafton	4,030	1,839,081 00	19	807	471	816	27	19	455	802	685	.85	20
Harvard	2,233	988,385 00	12	387	262	468	7	54	239	358	302	.84	12
Hardwick	1,253	978,646 00	10	230	148	237	1	24	143	253	189	.75	10
Holden	2,499	961,565 00	12	476	252	508	1	39	259	373	336	.90	12
Hubbardston	1,386	800,562 00	11	235	197	312	3	46	197	245	221	.90	11
Lancaster	2,008	2,123,735 00	10	270	240	336	5	57	235	264	230	.87	13
Leicester	2,779	1,609,297 00	15	539	—	646	5	41	340	500	463	.92	15
Leominster	5,776	3,779,117 00	19	835	528	1,010	13	91	572	902	785	.87	21
Lunenburg	1,101	693,199 00	8	152	102	171	4	19	93	139	121	.89	8

## SCHOOL-RETURNS.

lxvii

Mendon	1,094	612,582 00	8	229	145	252	5	36	149	215	201	·95	8
Milford	9,310	4,384,855 00	39	2,082	-	2,353	5	223	1,420	1,900	1,678	·87	42
Millbury	4,741	2,213,645 00	17	828	504	929	5	52	542	790	698	·88	18
New Braintree	610	482,300 00	5	94	-	135	1	10	61	96	90	·94	5
Northborough	1,676	1,180,188 00	7	210	139	273	4	25	139	193	150	·78	8
Northbridge	4,053	1,831,438 00	15	771	462	949	6	50	549	662	603	·91	15
North Brookfield	4,459	1,896,887 00	18	810	505	890	6	105	740	740	650	·87	18
Oakham	809	361,624 00	6	135	88	159	2	18	-	88	116	·83	6
Oxford	2,604	1,425,394 00	12	474	-	531	8	49	334	354	338	·95	12
Paxton	592	278,238 00	6	127	-	127	-	25	70	108	97	·89	6
Petersham	1,109	593,654 00	9	168	106	223	3	26	112	168	149	·88	9
Phillipston	621	273,300 00	6	125	95	143	2	51	79	107	91	·85	6
Princeton	1,100	841,074 00	9	162	100	206	7	40	100	179	143	·80	9
Royalston	1,192	679,036 00	11	201	144	258	5	40	144	210	194	·96	11
Rutland	1,060	493,542 00	9	220	117	226	6	39	-	210	171	·81	9
Shrewsbury	1,500	1,119,010 00	9	230	159	290	14	46	159	266	242	·90	9
Southborough	2,142	1,298,608 00	9	357	208	373	16	23	218	293	252	·86	9
Southbridge	6,465	3,048,519 00	26	1,068	780	1,326	10	63	717	1,035	840	·87	27
Spencer	7,466	3,048,520 00	23	1,470	827	1,414	2	86	819	1,186	996	·84	25
Sterling	1,414	942,155 00	12	243	175	298	5	41	176	223	203	·91	12
Sturbridge	2,062	992,851 00	15	546	240	562	10	14	249	300	270	·90	15
Sutton	3,105	1,364,057 00	15	716	431	568	7	31	342	373	334	·89	15
Templeton	2,789	1,059,873 00	15	468	293	562	12	77	282	450	405	·90	14
Upton	2,023	856,017 00	11	318	231	371	10	34	223	314	294	·93	11
Uxbridge	3,111	1,876,890 00	16	481	405	604	20	49	380	478	416	·87	16
Warren	3,889	1,937,529 00	18	784	-	747	-	46	467	587	523	·89	19
Webster	5,696	1,994,607 00	15	982	-	1,112	5	78	702	772	656	·85	16
Westborough	5,214	2,379,883 00	17	772	524	866	7	81	556	658	607	·90	19
West Boylston	2,994	1,027,920 00	11	566	379	661	7	46	372	458	401	·87	11
West Brookfield	1,917	902,378 00	10	355	-	375	5	36	192	341	258	·75	10
Westminster	1,652	826,690 00	13	268	188	323	6	67	188	270	236	·86	13
Winchendon	3,722	1,809,091 00	18	621	391	676	3	64	399	595	507	·85	18
Worcester	58,295	41,005,112 00	173	9,827	6,552	10,029	-	668	-	7,745	7,170	·92	200
Totals	226,885	\$127,690,969 00	958	40,247	21,243	33,672	399	3,639	17,963	34,796	30,991	·89	1,013

## WORCESTER COUNTY — CONTINUED.

TOWNS.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	A'v'ge wages per month of male teachers in Public Schools.	A'v'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than six months each.	HIGH SCHOOLS.					Salary of Principal.	
										No. of High Schools.	No. of teachers.	No. of pupils.	How supported.	LENGTH.		
														Months.		Days.
Ashburnham	4	13	1	-	\$29 34	\$25 34	81-11	6-5	-	1	5	104	Taxation,	9-3	\$883 00	
Athol .	2	18	4	4	150 32	31 67	137-05	7-6	-	1	2	59	Taxation,	9-10	1,200 00	
Auburn .	3	9	2	2	32 00	22 64	50-5	7-2	-	1	-	-	-	-	-	
Barre .	5	20	9	8	51 00	29 00	99	7-15	1	1	2	50	Taxation,	9	867 00	
Berlin .	-	6	3	2	-	32 00	35	7	-	1	-	-	-	-	-	
Blackstone .	4	27	9	1	71 14	31 16	166-8	8-15	-	1	2	70	Taxation,	9	866 67	
Bolton .	1	7	-	-	70 00	30 00	55	7-4	-	1	1	52	Not by tax,	10	700 00	
Boylston .	1	6	2	2	60 00	32 42	53	8-13	-	1	1	18	Taxation,	3	180 00	
Brookfield .	4	16	4	1	48 00	33 00	108	8	-	1	1	42	Taxation,	9-10	700 00	
Charlton .	5	13	-	3	35 70	28 26	90	7-10.	-	-	-	-	-	-	-	
Clinton .	1	27	3	3	150 00	46 50	259-18	10	-	1	2	68	Taxation,	10-6	1,500 00	
Dana .	1	8	1	-	30 00	21 50	37-10	6-5	-	-	-	-	-	-	-	
Douglas .	3	14	3	3	66 66	30 33	105	8	-	1	1	43	Taxation,	9	900 00	
Dudley .	2	16	3	2	22 00	28 40	107	7-13	-	-	-	-	-	-	-	
Fitchburg .	7	52	9	8	106 30	37 80	460	9-16	1	1	5	239	Taxation,	10	1,702 50	
Gardner .	1	22	4	4	110 00	40 00	121-16	7-3	-	1	2	70	Taxation,	9-11	1,100 00	
Grafton .	4	35	6	5	85 00	36 00	161	9	-	1	2	60	Taxation,	10	1,005 00	
Hardwick .	4	12	2	2	30 19	21 00	88	7-7	-	-	-	-	-	-	-	
Harvard .	1	15	1	1	40 00	31 28	65-5	6-9	-	-	-	-	-	-	-	
Holden .	-	20	1	1	-	29 83	90	7-10	-	-	-	-	-	-	-	
Hubbardston .	4	13	2	2	36 00	25 00	71-10	6-10	-	-	-	-	-	-	-	
Lancaster .	1	14	2	1	166 67	42 71	79	8	-	1	4	55	Taxation,	9	1,500 00	
Leicester .	3	16	4	4	56 69	34 48	119	8-17	-	1	1	29	Taxation,	9-10	800 00	
Leominster .	2	25	-	-	111 67	38 55	151-15	8-8	-	1	4	155	Part tax,	10	1,733 33	
Lunenburg .	3	10	4	2	26 33	24 54	48	6	-	-	-	-	-	-	-	

## SCHOOL-RETURNS.

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Mendon	3	6	-	-	24	58	55	6-18	-	1	1	40	Taxation,	6	330 00
Milford	2	47	13	4	150	00	39 25	9-1	-	1	1	187	Taxation,	10	1,500 00
Millbury	3	19	5	3	87	00	36 53	8-16	-	1	1	62	Taxation,	10	1,300 00
New Braintree	-	7	2	2	-	-	30 00	7-10	-	-	-	-	-	-	-
Northborough	3	15	7	6	100	00	33 68	59-10	-	1	2	46	Taxation,	10	1,000 00
Northbridge	3	18	13	12	93	00	42 50	9-5	-	1	1	34	Taxation,	10	1,350 00
North Brookfield	3	18	3	-	66	16	34 88	133	-	1	2	84	Taxation,	10	1,135 51
Oakham	2	6	1	1	26	50	24 50	37-16	-	-	-	-	-	-	-
Oxford	5	13	5	3	49	00	31 34	100-15	-	1	1	37	Taxation,	10	768 00
Paxton	1	5	2	-	37	00	25 45	36	-	-	-	-	-	-	-
Petersham	2	14	2	-	24	00	24 28	69-15	-	1	1	41	Taxation,	7-15	310 00
Phillipston	2	9	-	-	32	00	23 33	39	-	-	-	-	-	-	-
Princeton	4	8	-	-	35	00	23 00	54	-	-	-	-	-	-	-
Royalston	4	11	4	4	41	00	25 00	66	-	-	-	-	-	-	-
Rutland	4	11	-	-	35	50	24 80	55-15	-	-	-	-	-	-	-
Shrewsbury	1	13	2	1	89	33	32 50	66-14	-	1	1	42	Taxation,	7	670 00
Southborough	3	14	5	3	72	78	31 38	77-15	-	1	2	40	Taxation,	9-10	866 66
Southbridge	4	24	1	-	61	00	34 08	225	-	1	2	46	Taxation,	10	1,200 00
Spencer	4	37	10	11	72	88	33 82	199-2	-	1	2	77	Taxation,	9-15	1,200 00
Sterling	2	14	4	4	30	00	31 22	89-10	-	-	-	-	-	-	-
Sturbridge	1	19	2	2	24	00	25 00	117	-	-	-	-	-	-	-
Sutton	3	22	3	1	48	14	28 33	118-18	-	1	1	39	Taxation,	9	700 00
Templeton	1	17	-	-	115	00	31 00	107-10	-	1	2	76	Taxation,	10	1,150 00
Upton	2	13	4	4	67	22	32 80	84	-	1	1	45	Taxation,	9	850 00
Uxbridge	1	19	4	3	121	00	34 00	131-10	-	1	1	23	Taxation,	9-10	1,150 00
Warren	4	22	8	8	63	46	29 25	143-10	-	1	1	69	Taxation,	9-5	895 83
Webster	4	14	-	-	66	00	39 70	132-15	-	1	2	69	Taxation,	10	1,100 00
Westborough	1	21	6	6	92	30	38 63	138-16	-	1	3	94	Taxation,	9-3	900 00
West Boylston	1	13	6	3	32	00	36 00	79	-	1	2	123	Taxation,	9	746 00
West Brookfield	2	12	1	-	53	66	25 33	74-10	-	-	-	-	-	-	-
Westminster	3	17	11	9	44	50	27 90	150-10	-	1	2	52	Part tax,	6	315 00
Winchendon	4	20	-	-	43	33	31 06	115-5	-	1	1	34	Taxation,	9	700 00
Worcester	15	185	107	105	139	20	49 69	1081-4	-	1	13	662	Taxation,	10	2,430 00
Totals	161	1,028	308	252	\$36 09	\$31 35	7948-7	8-6	8	39	85	3,136	-	-	\$38,204 50

WORCESTER COUNTY — CONTINUED.

TOWNS.	Amount paid for all school purposes from money raised by taxation.	Amount raised by taxes for Schools, including wages of teachers, board, fuel, care of fires and school-rooms, for the school-year 1879-80.	Expense of supervision by school-committee.	Salary of Superintendent of Public Schools.	Expenses of printing reports, etc.	Expense of sundries, — books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount of voluntary contributions for Public Schools.
Ashburnham .	\$3,488 63	\$2,800 00	\$142 50	—	\$20 00	\$23 00	—	\$192 65	\$310 48	—
Athol .	6,500 00	6,500 00	150 00	—	27 25	350 00	—	—	654 80	—
Auburn .	1,196 00	1,050 00	101 00	—	15 00	—	—	—	30 00	\$8 00
Barre .	4,332 00	4,600 00	172 00	—	15 00	207 00	—	—	125 00	—
Berlin .	978 00	1,000 00	52 00	—	—	37 57	—	—	10 08	—
Blackstone	7,850 00	7,300 00	250 00	\$250 00	51 73	886 62	—	350 00	160 99	—
Bolton .	1,374 65	1,200 00	77 50	—	16 75	7 84	—	—	—	—
Boylston	1,861 68	1,500 00	72 00	—	14 80	15 00	—	75 00	—	—
Brookfield	4,988 00	4,450 00	120 00	—	25 00	55 00	—	—	45 00	—
Charlton	3,559 00	3,000 00	129 75	—	16 00	17 64	—	—	18 41	—
Clinton .	37,867 13	20,612 86	350 00	—	92 00	1,783 75	\$13,792 75	1,016 12	219 65	—
Dana .	701 36	700 00	64 50	—	14 00	2 60	—	—	2 50	—
Douglas .	4,296 37	4,000 00	125 00	—	35 25	302 88	—	—	—	—
Dudley .	5,286 53	4,200 00	130 00	—	—	223 44	—	548 18	314 91	—
Fitchburg	35,033 75	32,140 00	1,800 00	1,800 00	50 00	2,559 02	—	—	1,222 38	—
Gardner .	8,411 91	7,000 00	375 00	—	60 00	256 24	—	75 00	645 67	—
Grafton .	7,346 00	6,800 00	655 00	—	25 00	102 00	—	75 00	570 00	—
Hardwick	3,008 06	2,000 00	142 12	—	24 00	9 59	—	—	119 33	—
Harvard	2,122 65	2,000 00	110 00	—	22 25	47 96	713 02	22 02	57 08	—
Holden .	3,302 00	2,802 00	188 75	—	—	307 76	1,281 45	254 94	245 06	—
Hubbardston.	2,245 00	2,000 00	160 00	—	15 00	20 00	—	—	50 00	—
Lancaster	5,417 87	4,978 39	223 88	—	29 40	99 31	7,955 41	—	172 17	—
Leicester	5,500 00	4,867 13	161 30	—	—	200 00	—	615 79	100 00	—
Leominster	9,899 90	8,735 00	238 60	—	55 00	141 72	—	5,336 00	289 94	—
Lunenburg	1,537 07	1,311 41	85 75	—	25 50	91 77	—	—	22 64	—



# SCHOOL-RETURNS.

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Mendon . . . . .	1,273 29	1,200 00	75 00	-	28 00	8 05	-	424 19	16 23	-
Milford . . . . .	21,838 73	19,000 00	1,291 00	1,500 00	10 00	522 65	-	1,005 08	-	-
Millbury . . . . .	8,815 25	7,500 00	405 00	-	42 50	343 74	-	250 00	274 01	-
New Braintree . . . . .	1,394 44	1,259 33	66 00	-	17 00	20 94	-	-	31 17	-
Northborough . . . . .	3,286 68	3,200 00	110 00	-	25 00	20 00	-	-	225 00	-
Northbridge . . . . .	8,744 60	7,400 00	225 00	-	50 00	205 00	-	85 51	250 77	-
N. Brookfield . . . . .	8,443 66	6,500 00	235 00	-	50 50	1,371 13	-	165 00	122 03	-
Oakham . . . . .	1,063 27	800 00	40 00	-	9 00	682 00	-	-	42 02	21 00
Oxford . . . . .	3,900 00	4,000 00	230 00	-	25 00	60 00	-	440 23	98 34	-
Paxton . . . . .	908 42	1,000 00	41 67	-	12 00	7 96	-	-	11 86	-
Petersham . . . . .	1,794 93	1,850 00	113 24	-	25 00	59 26	-	-	85 55	100 00
Phillipston . . . . .	1,078 20	800 00	51 00	-	17 00	-	-	-	50 00	-
Princeton . . . . .	1,304 80	1,400 00	83 45	-	5 00	8 00	-	69 68	10 00	-
Royalston . . . . .	1,800 00	1,800 00	113 00	-	23 50	20 00	-	-	325 00	170 00
Rutland . . . . .	1,807 91	1,800 00	99 00	-	10 00	81 35	-	-	187 29	73 15
Shrewsbury . . . . .	2,970 00	2,700 00	203 50	-	25 00	-	-	100 00	50 00	-
Southborough . . . . .	3,941 54	4,000 00	175 00	-	42 75	114 12	-	64 00	114 76	19 58
Southbridge . . . . .	7,960 00	7,460 00	417 50	-	-	258 13	-	-	225 00	-
Spencer . . . . .	18,547 56	9,800 00	280 75	-	70 00	288 64	7,491 21	298 90	318 06	-
Sterling . . . . .	3,019 81	2,900 00	128 75	-	20 00	-	-	-	74 23	-
Sturbridge . . . . .	5,147 29	3,000 00	318 89	-	20 00	18 17	-	1,767 38	92 94	-
Sutton . . . . .	3,817 95	3,600 00	150 00	-	-	57 66	-	-	-	-
Templeton . . . . .	5,219 33	4,500 00	173 20	-	58 00	265 35	-	-	104 85	-
Upton . . . . .	3,958 59	4,000 00	100 00	-	18 00	58 83	-	-	104 71	-
Uxbridge . . . . .	5,853 63	6,000 00	-	-	65 00	75 00	-	571 01	-	-
Warren . . . . .	8,690 40	6,000 00	344 42	-	40 00	443 53	-	1,380 00	482 45	-
Webster . . . . .	7,576 34	6,300 00	225 00	-	27 00	144 73	-	651 48	111 00	-
Westborough . . . . .	9,077 00	7,500 00	600 00	600 00	-	122 00	-	80 00	675 00	-
West Boylston . . . . .	2,973 41	3,300 00	110 00	-	-	-	-	-	-	-
W. Brookfield . . . . .	2,852 64	2,600 00	100 00	-	25 00	18 00	-	-	20 00	36 00
Westminster . . . . .	3,443 64	2,876 43	126 45	-	-	90 30	-	232 25	118 21	-
Winchendon . . . . .	5,457 32	4,491 32	248 25	-	55 00	106 00	-	325 26	231 49	-
Worcester . . . . .	141,502 47	124,024 01	3,230 00	2,430 00	151 25	8,222 48	10,753 80	857 07	5,017 66	-
Totals . . . . .	\$377,013 25	\$349,995 88	\$16,186 72	\$6,580 00	\$1,615 43	\$20,765 55	\$41,987 64	\$18,548 62	\$14,533 97	\$427 73



## WORCESTER COUNTY — CONCLUDED.

TOWNS.	Amount of local funds the income of which can be appropriated only for the support of schools and acad-	Income of local funds.	Income of surplus rev- enue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school-fund pay- able Jan. 25, 1880.	How much of said fund was used for appa- ratus and books of reference.
				Number of Aca- demies.	Whole No. attend- ing for the year.	Amount of sub- sidiary paid.	No. of Private Schools.	Whole No. attend- ing for the year.	Estimated amt't of tuition.		
Ashburnham	\$127,602 31	\$6,585 46	\$116 95	1	104	\$900 00	1	1	—	\$235 65	—
Athol	—	—	212 11	—	—	—	—	—	—	210 21	\$53 40
Auburn	—	—	104 73	—	—	—	—	—	—	221 99	—
Barre	—	—	194 00	—	—	—	—	—	—	188 62	32 00
Berlin	2,020 00	121 20	94 09	—	—	—	—	—	—	217 23	—
Blackstone	—	—	458 10	—	—	—	1	7	\$700 00	246 67	—
Bolton	12,000 00	719 29	—	—	—	—	1	—	—	218 51	7 84
Boylston	—	—	75 42	—	—	—	—	—	—	217 82	—
Brookfield	—	—	156 00	—	—	—	—	—	—	195 17	25 00
Charlton	2,035 00	101 00	—	—	—	—	1	17	35 00	233 77	—
Clinton	—	—	—	—	—	—	1	40	600 00	250 74	—
Dana	—	—	38 27	—	—	—	—	—	—	210 89	9 00
Douglas	941 33	56 48	343 97	—	—	—	1	50	500 00	242 49	—
Dudley	6,000 00	319 50	150 62	1	61	1,483 50	—	—	—	255 76	13 50
Fitchburg	—	—	224 38	—	—	—	1	25	200 00	221 36	231 30
Gardner	1,000 00	50 00	245 07	—	—	—	—	—	—	222 00	50 00
Grafton	1,000 00	65 00	—	—	—	—	—	—	—	228 14	56 00
Hardwick	200 00	12 00	106 32	—	—	—	—	—	—	241 11	36 83
Harvard	—	—	—	1	38	450 00	—	—	—	224 17	—
Holden	3,366 66	202 00	186 59	—	—	—	—	—	—	250 22	—
Hubbardston	1,200 00	72 00	—	—	—	—	—	—	—	225 36	45 00
Lancaster	—	—	—	—	—	—	1	10	100 00	177 24	—
Leicester	45,000 00	3,000 00	204 99	1	—	—	—	—	—	204 17	15 00
Leominster	11,143 33	650 00	—	—	—	—	—	—	—	182 30	—
Lunenburg	—	—	102 60	—	—	—	1	10	20 00	216 53	—

## SCHOOL-RETURNS.

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Mendon	205 81	-	-	-	-	-	-	-	-	221 49	-
Milford	311 74	-	-	-	-	-	-	-	-	311 74	50 00
Milbury	-	-	-	-	-	-	-	-	-	239 64	59 00
New Braintree	-	-	-	-	-	-	-	-	-	209 60	12 00
Northborough	-	-	-	-	-	-	-	-	-	176 25	-
Northbridge	183 15	-	-	-	-	-	-	-	-	227 55	58 72
North Brookfield	-	-	-	-	-	-	-	-	-	235 37	50 00
Oakham	90 37	-	-	-	-	-	-	-	-	214 06	-
Oxford	-	-	-	-	-	-	-	-	-	197 44	-
Paxton	-	-	-	-	-	-	-	-	-	212 38	-
Petersham	73 36	-	-	-	-	-	-	-	-	217 82	45 45
Phillipston	79 74	-	-	-	-	-	-	-	-	211 88	20 00
Princeton	-	-	-	-	-	-	-	-	-	217 13	-
Royalston	90 90	-	-	-	-	-	-	-	-	220 11	17 50
Rutland	-	-	-	-	-	-	-	-	-	219 01	-
Shrewsbury	-	-	-	-	-	-	-	-	-	175 45	-
Southborough	77 61	-	-	-	-	-	-	-	-	185 16	5 42
Southbridge	2,040 68	-	-	-	-	-	-	-	-	202 80	-
Spencer	-	-	-	-	-	-	-	-	-	289 35	25 49
Sterling	111 11	-	-	-	-	-	-	-	-	226 64	-
Sturbridge	-	-	-	-	-	-	-	-	-	240 71	-
Sutton	160 33	-	-	-	-	-	-	-	-	219 53	-
Templeton	-	-	-	-	-	-	-	-	-	195 56	-
Upton	-	-	-	-	-	-	-	-	-	232 68	48 55
Uxbridge	-	-	-	-	-	-	-	-	-	205 66	-
Warren	-	-	-	-	-	-	-	-	-	208 13	35 60
Webster	-	-	-	-	-	-	-	-	-	246 37	60 12
Westborough	503 13	-	-	-	-	-	-	-	-	227 05	42 06
West Boylston	-	-	-	-	-	-	-	-	-	202 39	-
West Brookfield	-	-	-	-	-	-	-	-	-	236 25	11 00
Westminster	-	-	-	-	-	-	-	-	-	225 36	37 00
Winchendon	-	-	-	-	-	-	-	-	-	214 27	190 63
Worcester	-	-	-	-	-	-	-	-	-	-	-
Totals	\$224,143 63	\$12,664 07	\$6,942 14	6	453	\$17,333 50	24	1,690	\$8,357 50	\$12,602 95	\$1,343 41

## RECAPITULATION.

COUNTIES.	Population - State Census, 1880.	Valuation - 1880.	No. of Public Schools.	No. of persons in town May 1, 1879, between 5 and 15 years of age.	No. of persons in town May 1, 1879, between 8 and 14 years of age.	No. of different pupils of all ages in the Pub- lic Schools during the school-year.	No. attending within the year under 5 years of age.	No. attending within the year over 15 years of age.	No. attending within the year between 8 and 14 years of age.	Average No. belonging to all the Schools.	Average attendance in all the Pub. Schools dur- ing the school-year.	The per cent of attend- ance based upon the average No. belonging.
Barnstable . . .	31,945	\$14,585,983	166	5,672	3,607	6,501	52	934	3,699	5,724	4,941	·86
Berkshire . . .	69,049	33,371,748	345	13,500	7,461	14,360	176	1,188	8,397	11,365	9,949	·87
Bristol . . .	139,121	100,029,138	463	24,147	10,581	25,106	158	1,634	13,515	19,169	17,066	·89
Dukes . . .	4,305	3,186,214	24	574	384	680	11	75	383	628	517	·82
Essex . . .	244,640	155,241,900	772	41,651	26,649	40,825	140	2,374	21,043	33,994	30,050	·88
Franklin . . .	36,000	15,428,323	248	6,119	3,650	7,031	122	714	3,905	5,764	5,109	·89
Hampden . . .	104,117	66,301,731	371	17,996	10,891	17,019	157	1,404	9,908	13,158	11,846	·89
Hampshire . . .	47,235	24,078,980	269	8,632	4,426	9,298	127	838	5,283	7,459	6,640	·89
Middlesex . . .	317,951	258,392,568	954	53,637	23,526	58,203	273	4,851	26,600	47,450	42,816	·90
Nantucket . . .	3,726	2,103,926	11	571	314	450	-	32	272	427	378	·88
Norfolk . . .	96,462	86,465,594	412	17,241	8,902	18,876	119	1,410	10,311	15,564	14,015	·90
Plymouth . . .	74,024	39,659,107	332	12,603	5,746	13,618	157	1,035	7,402	11,528	10,098	·87
Suffolk . . .	387,626	658,220,621	246	64,731	2,461	61,138	2	4,892	2,184	54,221	48,711	·89
Worcester . . .	226,885	127,690,969	958	40,247	21,243	33,672	339	3,639	17,963	34,796	30,991	·89
Totals . . .	1,783,086	\$1,584,756,802	5,570	307,321	129,841	306,777	1,833	25,020	130,865	261,247	233,127	·89

# SCHOOL-RETURNS.

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## RECAPITULATION — CONTINUED.

COUNTIES.	HIGH SCHOOLS.													
	No. of teachers required by the Public Schools.	Whole No. of different male teachers in school-year.	Whole No. of different female teachers in school-year.	No. of teachers who have attended Normal Schools.	No. of teachers who have graduated from Normal Schools.	A'ge wages per month of male teachers in Public Schools.	A'ge wages per month of female teachers in Public Schools.	Aggregate of months all the Public Schools have been kept during the school-year.	Average No. of months the Public Schools have been kept for the entire year.	No. of Schools kept less than six months each.	No. of High Schools.	No. of teachers.	No. of pupils.	Salary of Principal.
Barnstable	173	42	151	34	26	\$63 20	\$29 64	1,372-0	8-5	4	10	14	544	\$8,213 75
Berkshire	398	82	418	58	41	40 22	22 95	2,807-6	8-2	6	11	22	726	10,598 33
Bristol	523	88	562	120	99	60 05	31 79	4,273-8	9-5	1	10	34	1,193	11,950 00
Dukes	25	22	24	-	-	35 54	24 80	166-12	6-19	1	1	2	42	586 50
Essex	892	92	912	286	232	93 42	35 12	7,451	9-13	2	26	74	2,226	32,563 30
Franklin	262	49	319	36	33	32 99	23 58	1,772-6	7-3	1	8	14	380	4,351 00
Hampden	416	60	471	124	102	54 97	28 39	3,195-2	8-12	4	9	33	1,037	12,952 50
Hampshire	290	63	353	56	40	37 65	23 51	2,083-8	7-15	-	10	18	567	7,797 11
Middlesex	1,264	159	1,318	401	316	88 01	38 02	8,613-8	9-1	7	39	115	4,012	47,129 00
Nantucket	12	1	11	-	-	87 50	23 32	95-15	8-16	2	1	2	60	900 00
Norfolk	450	98	453	120	103	89 97	38 97	3,969-19	9-12	-	23	45	1,612	26,482 50
Plymouth	354	71	372	128	97	61 11	31 08	2,953-4	9	-	16	31	953	17,343 20
Suffolk	1,192	145	1,070	557	570	134 87	45 77	2,743	9-14	-	12	5	2,270	36,530 00
Worcester	1,013	161	1,028	308	252	66 09	31 35	7,948	8-6	8	39	85	3,136	38,204 50
Totals	7,264	1,133	7,462	2,228	1,911	\$67 54	\$30 59	49,474-8	8-17	36	215	491	18,758	\$255,601 69

## RECAPITULATION — CONTINUED.

COUNTIES.	Amount paid for all school purposes from money raised by taxation.	Amount raised by taxes for Schools, including wages of teachers, board, fuel, care of fires and school-rooms, for the school-year 1879-80.	Expense of supervision by school-committee.	Salary of Superintendent of Public Schools.	Expenses of printing reports, etc.	Expense of sundries, — books, stationery, etc.	Amount expended for new school-houses.	Amount expended for alterations and permanent improvements.	Amount expended for ordinary repairs.	Amount of voluntary contributions for Public Schools.
Barnstable	\$60,727 92	\$56,980 00	\$1,977 79	\$666 00	\$350 65	\$946 42	\$2,670 41	\$1,472 94	\$2,357 86	\$149 00
Berkshire	114,797 24	100,299 53	2,424 73	1,350 00	432 80	1,756 48	20,750 00	3,139 87	3,737 32	790 60
Bristol	289,534 90	248,544 37	8,872 13	5,998 75	684 65	8,566 35	10,854 84	16,199 31	8,459 25	71 00
Dukes	6,093 35	5,165 00	237 00	—	61 75	164 92	—	36 90	216 54	—
Essex	536,941 59	459,365 49	15,161 96	6,447 00	2,147 01	21,608 34	12,000 00	13,709 85	21,020 48	2,111 00
Franklin	55,517 64	48,900 00	2,379 47	—	296 90	1,466 49	5,355 50	1,196 66	1,543 89	698 00
Hampden	232,824 85	187,435 42	7,058 52	5,600 00	406 35	5,445 21	21,067 02	5,009 25	7,481 48	777 00
Hampshire	78,175 12	68,544 45	2,452 23	1,000 00	304 49	2,064 80	499 25	8,898 77	2,778 21	1,805 00
Middlesex	854,221 15	845,041 21	22,628 07	13,247 33	2,231 93	29,848 88	21,364 44	10,947 26	38,049 60	265 75
Nantucket	4,426 44	3,961 50	100 00	—	29 75	376 92	—	—	68 75	—
Norfolk	296,483 65	239,978 58	12,448 01	7,157 96	663 10	11,009 75	13,898 91	18,632 43	11,659 73	5 00
Plymouth	150,190 98	128,137 78	5,055 98	965 00	805 91	5,040 12	1,590 25	8,692 29	7,784 37	—
Suffolk	1,713,224 11	1,320,210 53	36,238 27	5,908 27	1,011 00	181,429 17	132,155 02	99,338 11	1,878 40	—
Worcester	377,013 25	349,995 88	16,186 72	6,580 00	1,615 43	20,765 55	41,987 64	18,548 62	14,533 97	427 73
Totals	\$4,770,172 19	\$4,062,562 74	\$133,220 88	\$54,920 31	\$11,091 72	\$110,490 41	\$284,103 28	\$205,822 26	\$121,570 35	\$7,100 08

## RECAPITULATION — CONCLUDED.

COUNTIES.	Amount of local funds the income of which can be appropriated only for the support of schools and acad- emies.	Income of local funds.	Income of surplus rev- enue and other funds, including the dog tax, used at the option of the town.	ACADEMIES AND PRIVATE SCHOOLS.						Town's share of school-fund pay- able Jan. 25, 1880.	How much of said fund was used for appa- ratus and books of reference.
				Number of Acad- emies.	Whole No. attend- ing for the year.	Amount of tu- tion paid.	No. of Private Schools.	Whole No. attend- ing for the year.	Estimated amount of tuition.		
Barnstable . . .	\$31,100 00	\$1,718 00	\$914 15	1	30	\$96 00	1	39	\$275 00	\$3,082 04	\$174 76
Berkshire . . .	21,340 44	1,362 48	1,882 02	1	35	675 00	18	519	14,492 00	7,064 75	138 24
Bristol . . .	129,500 00	9,140 77	3,859 24	3	204	9,119 12	32	1,215	20,680 00	3,550 51	58 43
Dukes . . .	-	-	130 34	1	60	180 00	-	-	-	1,018 72	-
Essex . . .	405,268 00	24,338 76	4,271 47	5	547	24,805 65	48	2,861	24,580 00	6,832 48	279 60
Franklin . . .	72,247 50	4,933 89	1,062 63	3	182	810 00	8	166	1,008 00	5,604 52	269 46
Hampden . . .	207,636 65	11,547 90	2,927 06	2	484	8,701 87	21	2,269	12,084 00	4,659 75	174 08
Hampshire . . .	167,982 95	11,186 74	1,558 60	4	597	51,747 75	14	228	3,755 00	4,958 85	144 06
Middlesex . . .	173,839 09	8,917 09	4,610 22	8	562	17,352 00	66	3,010	36,414 50	9,847 70	855 12
Nantucket . . .	38,000 00	2,080 00	-	1	75	600 00	-	-	-	203 48	50 00
Norfolk . . .	138,206 42	8,357 57	4,256 31	3	219	2,175 00	17	211	5,210 00	4,335 03	242 30
Plymouth . . .	116,444 00	6,601 51	2,208 04	4	115	1,228 00	18	365	8,916 50	5,739 98	250 90
Suffolk . . .	46,935 04	2,359 03	62,278 09	31	6,835	102,697 00	83	3,318	2,850 00	348 02	-
Worcester . . .	224,143 63	12,604 07	6,942 14	6	453	17,333 50	24	1,690	8,357 50	12,662 95	1,343 41
Totals . . .	\$1,772,643 72	\$103,207 81	\$96,850 31	73	10,398	\$237,520 89	350	15,891	\$138,622 50	\$69,908 78	\$3,980 36



## EVENING SCHOOLS.

CITIES AND TOWNS.	No. of Schools.	ATTENDANCE.			TIME.	No. of Teachers.	Expense.
		Males.	Females.	Average.	No. of Evenings.		
Boston . . .	23	2,697	*	1,400	93	123	\$39,808 60
Brookline . .	1	—	—	19	—	2	200 00
Cambridge . .	3	721	204	244	50	24	2,793 08
Clinton . . .	2	68	52	31	46	10	205 04
Fall River . .	16	866	263	486	66	32	2,800 00
Fitchburg . .	3	121	60	86	80	13	905 00
Haverhill . .	2	—	—	—	47	20	999 50
Holyoke . . .	7	376	209	156	40	20	921 74
Lawrence . .	18	470	224	349	39	—	1,500 00
Lowell . . .	5	812	371	498	73	52	4,635 00
Lynn . . . .	1	33	27	55	58	1	200 00
Malden . . .	2	52	10	41	36	4	194 00
Medford . . .	1	18	—	11	16	1	66 00
Milford . . .	1	65	—	42	103	1	500 00
Montague . .	1	21	9	—	10	1	65 00
New Bedford .	2	175	150	162	39	7	900 00
Newburyport .	2	50	50	63	27	5	108 00
Newton . . .	3	87	—	32	82	4	634 11
Peabody . . .	1	35	—	25	30	2	300 00
Salem . . . .	4	293	166	150	150†	15	2,842 50
Springfield .	2	181	111	87	48	9	623 00
Stoneham . .	1	22	12	20	16	2	72 50
Sutton . . .	2	131	69	116	55	3	135 91
Taunton . . .	1	116	25	101	64	5	1,084 29
Waltham . . .	2	70	57	36	27	5	398 00
Worcester . .	10	619	192	293	75	28	2,892 15
26 cities and towns,	116	8,099	2,261	4,503	1,370	389	\$65,783 42

\* Included with the males.

† Two kept 80 evenings, and two kept 70 evenings.

## RETURNS OF SCHOOLS IN STATE INSTITUTIONS FOR THE YEAR ENDING JULY 31, 1880.

STATE INSTITUTIONS.	No. of Schools in the Institution.	No. of different Scholars of all ages during the year.	Average attendance during the year.	No. under 5 years of age attending School.	No. over 15 years of age attending School.	No. between 5 and 15 years of age remaining in the Institution July 31, 1880.	NO. OF TEACHERS DURING THE YEAR.		WAGES OF TEACHERS PER MONTH.		Length of each School in Months.
							Males.	Females.	Males.	Females.	
State Industrial School at Lancaster .	3	126	80	-	111	75	-	7	-	\$25 00	12
State Primary School at Monson .	8	619	389	14	10	359	-	8	-	21 00*	10-10
State Reform School at Westborough .	6	336	212	-	115	91	3	3	\$114 58	68 76	12

\* The principal has \$41.67 per month and board, the rest \$21 per month and board.

## GRADUATED TABLES — FIRST SERIES.

The following table shows the sums appropriated by the several cities and towns in the State, for the education of each child between five and fifteen years of age. The income of the surplus revenue and of other funds held in a similar way, when appropriated to schools, is added to the sum raised by taxes ; and these sums constitute the amount reckoned as appropriations. The income of such school-funds as were given and are held on the express condition that their income shall be appropriated to schools, is not included. Such an appropriation of their income, being necessary to retaining the funds, is no evidence of the liberality of those holding the trust. But if a town appropriates the income of any fund to its public schools, which may be so appropriated or not, at the option of the voters, or when the town has a legal right to use such income in defraying its ordinary expenses, then such an appropriation is as really a contribution to common schools as an equal sum raised by taxes. On this account the surplus revenue, and sometimes other funds, are to be distinguished from local school-funds as generally held. The income of the one *may* be appropriated to schools, or not, at the pleasure of the town ; the income of the other *must* be appropriated to schools by the condition of the donation. Funds of the latter kind are usually donations made to furnish means of education in addition to those provided by a reasonable taxation. Committees are expected, in their annual returns, to make this distinction in relation to school-funds.

Voluntary contributions are not included in the amount which is divided in order to ascertain the sum appropriated to each child. In many towns such contributions, however liberal, are not permanent, and cannot be relied upon as a stated provision. They are often raised and applied to favor particular districts or schools, or classes of scholars, and not to benefit equally all that attend the public schools. Besides, the value of board and fuel gratuitously furnished is determined by the mere estimate of individuals, and is therefore uncertain ; while the amount raised by taxes, being in money, has a fixed and definite value, and is a matter of record. Still the contributions voluntarily made are exhibited in a separate column of the table, as necessary to a complete statement of the provision made by the towns for the education of their children.

The table exhibits the rank of each city or town in the State, in respect to its liberality in the appropriation of money to its schools, as compared with other cities and towns for the year 1879-80, also its rank in a similar scale for 1878-79. It presents the sum appropriated to each child between five and fifteen.

## GRADUATED TABLES—(FOR THE STATE)—FIRST SERIES.

*Title showing the Comparative Amount of Money appropriated by the different Towns in the State for the Education of each Child in the Town, between the Ages of 5 and 15 Years.*

For 1878-79.	For 1879-80.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
1	1	MILANT.	\$44 57	\$4,679 85	—	\$4,679 85	105	—
3	2	Brookline	26 77-5	36,200 00	—	36,200 00	1,352	—
2	3	Milton	25 92 6	12,885 57	—	12,885 57	497	—
4	4	Newton	22 79-1	67,995 57	\$1,014 30	69,009 87	3,028	—
5	5	Boston	21 92-1	1,269,001 81	62,174 74	1,332,076 55	60,766	—
6	6	Arlington	20 93-6	17,000 00	—	17,000 00	812	—
9	7	Lexington	19 52-4	8,200 00	—	8,200 00	420	—
8	8	Winchester	18 83-5	11,000 00	—	11,000 00	584	—
12	9	Medford	18 54-2	23,705 00	—	23,705 00	1,279	—
7	10	Lancaster	18 43-8	4,978 39	—	4,978 39	270	—
10	11	Watertown	17 61-4	15,359 25	—	15,359 25	872	—
37	12	Waltham	17 55-4	31,467 00	270 78	31,737 78	1,808	—
13	13	Dedham	17 17-1	18,581 77	564 45	19,146 22	1,115	—
26	14	Weston	16 93-2	3,725 00	—	3,725 00	220	\$10 00
18	15	Swaupscott	16 66-7	6,500 00	—	6,500 00	390	—
15	16	Haverhill	16 55-7	45,500 00	—	45,500 00	2,748	—
17	17	Cambridge	16 34-9	145,258 50	—	145,258 50	8,885	—
21	18	Somerville	15 59	70,155 27	—	70,155 27	4,500	—

Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1878-79.	For 1879-80.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
32	19	Quincy . . . . .	\$15 53 9	\$26,480 00	-	\$26,480 00	1,704	-
23	20	Belmont . . . . .	15 47 6	6,500 00	-	6,500 00	420	-
19	21	Reading . . . . .	15 40	7,500 00	-	7,500 00	487	-
79	22	Northborough . . . . .	15 23 8	3,200 00	-	3,200 00	210	-
16	23	New Bedford . . . . .	15 21 6	63,346 40	\$684 00	64,030 40	4,208	-
11	24	Concord . . . . .	15 03	8,040 34	-	8,040 34	535	-
48	25	Melrose . . . . .	14 88	12,500 00	-	12,500 00	840	-
28	26	Springfield. . . . .	14 75 4	81,500 00	-	81,500 00	5,524	-
20	27	Malden . . . . .	14 63 1	31,500 00	-	31,500 00	2,153	-
42	28	Needham . . . . .	14 60 3	12,800 00	372 55	13,172 55	902	-
59	29	Falmouth . . . . .	14 53 1	4,900 00	200 46	5,100 46	351	-
27	30	Frammingham . . . . .	14 48 4	14,000 00	338 98	14,338 98	990	\$117 00
35	31	Groton . . . . .	14 46 1	4,700 00	-	4,700 00	325	-
45	32	Fitchburg . . . . .	14 45 4	32,140 00	224 38	32,364 38	2,239	-
30	33	Kingston . . . . .	14 39	3,450 00	104 30	3,554 30	247	-
25	34	Hingham . . . . .	14 30 2	10,083 30	-	10,083 30	705	-
33	35	Plymouth . . . . .	14 06	16,000 00	-	16,000 00	1,138	-
43	36	Salem . . . . .	13 92 3	63,837 10	1,224 49	65,061 59	4,673	-
56	37	Norwood . . . . .	13 69	5,750 00	-	5,750 00	420	-
29	38	North Andover . . . . .	13 68 6	7,500 00	-	7,500 00	518	-
151	39	Revere . . . . .	13 50 1	5,000 00	103 35	5,103 35	378	-
54	40	Walpole . . . . .	13 47 7	5,000 00	-	5,000 00	371	5 00
22	41	New Braintree . . . . .	13 39 7	1,259 33	-	1,259 33	94	-
61	42	Everett . . . . .	13 35 3	9,400 00	401 33	9,801 33	731	77 40
38	43	Stoneham . . . . .	13 30 3	11,600 00	-	11,600 00	872	-
66	44	Barnstable. . . . .	13 28 1	9,000 00	84 11	9,084 11	684	-

## SCHOOL-RETURNS.

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24	45	Barre	.	.	13 28	4,600 00	194 00	4,794 00	361	-
63	46	Lowell	.	.	13 23.5	111,086 74	-	111,086 74	8,393	-
159	47	Clinton	.	.	13 05.4	20,612 86	-	20,612 86	1,579	-
98	48	Abington	.	.	13 00.8	8,000 00	-	8,000 00	615	-
1113	49	East Bridgewater	.	.	12 98.7	5,000 00	-	5,000 00	385	-
41	50	Hyde Park	.	.	12 87.1	17,800 00	-	17,800 00	1,383	-
39	51	Chelsea	.	.	12 71.5	44,008 72	-	44,008 72	3,461	-
52	52	Westfield	.	.	12 70.9	17,750 00	424 75	18,174 75	1,430	-
53	53	Yarmouth	.	.	12 66	3,800 00	111 68	3,911 68	309	-
60	54	Worcester	.	.	12 62.1	124,024 01	-	124,024 01	9,827	-
58	55	Upton	.	.	12 58	4,000 00	-	4,000 00	318	-
72	56	Cohasset	.	.	12 51.2	5,000 00	242 50	5,242 50	419	-
104	57	Uxbridge	.	.	12 47.4	6,000 00	-	6,000 00	481	-
50	58	Lynn	.	.	12 44.4	72,074 89	-	72,074 89	5,792	-
44	59	Wrentham	.	.	12 43.3	5,000 00	209 36	5,209 36	419	-
99	60	Littleton	.	.	12 42.1	1,897 95	76 95	1,974 90	159	-
97	61	Sterling	.	.	12 39	2,900 00	111 11	3,011 11	243	-
78	62	Stockbridge	.	.	12 33.4	4,200 00	141 65	4,341 65	352	-
31	63	Greenfield	.	.	12 30.1	8,000 00	205 10	8,205 10	667	-
216	64	Draut	.	.	12 22.7	2,800 00	122 30	2,922 30	239	-
110	65	Granby	.	.	12 19.2	1,700 00	31 29	1,731 29	142	-
106	66	Stoughton	.	.	12 18.3	12,000 00	-	12,000 00	985	-
73	67	Sandwich	.	.	12 17.6	7,000 00	257 00	7,257 00	596	85 00
40	68	South Hadley	.	.	12 15.9	7,500 00	123 63	7,623 63	627	-
46	69	Bradford	.	.	12 13	4,500 00	-	4,500 00	371	-
57	70	Wakefield	.	.	12 12.4	10,500 00	-	10,500 00	866	-
70	71	Shelburne	.	.	12 11.5	3,000 00	113 50	3,113 50	257	-
76	72	Carlisle	.	.	12 07	700 00	-	700 00	58	-
53	73	Peabody	.	.	12 01.4	20,345 48	439 06	20,784 54	1,730	-
14	74	Boxborough	.	.	11 99.8	600 59	47 81	647 90	54	-
51	75	Holbrook	.	.	11 99.2	4,700 00	132 64	4,832 64	403	-
65	76	Taunton	.	.	11 95.6	38,810 60	-	38,810 60	3,246	-



Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1878-79.	For 1879-80.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
102	77	Bedford .	\$11 92-1	\$1,800 00	—	\$1,800 00	151	—
68	78	Weymouth .	11 91-4	24,000 00	\$722 17	24,722 17	2,075	—
62	79	Brockton .	11 88-5	24,740 48	300 78	25,041 26	2,107	—
91	80	Manchester .	11 86-5	2,800 00	—	2,800 00	236	—
36	81	Randolph .	11 81-6	8,531 24	—	8,531 24	722	—
86	82	Shrewsbury .	11 74	2,700 00	—	2,700 00	230	—
229	83	Mashpee .	11 69	500 00	26 00	526 00	45	—
107	84	Canton .	11 56-2	10,450 00	441 55	10,891 55	942	—
67	85	Sudbury .	11 54-2	2,000 00	216 00	2,216 00	192	—
128	86	Wellfleet .	11 50-7	4,200 00	—	4,200 00	365	—
49	87	Lincoln .	11 48-6	1,700 00	—	1,700 00	148	—
89	88	Petersham .	11 45	1,850 00	73 36	1,923 36	168	\$100 00
92	89	Southborough .	11 42-2	4,000 00	77 61	4,077 61	357	19 58
85	90	Orleans .	11 32-1	2,400 00	—	2,400 00	212	—
95	91	Mattapoisett .	11 31-6	2,100 00	72 77	2,172 77	192	—
100	92	Foxborough .	11 29-9	5,000 00	265 54	5,265 54	466	—
87	93	Dover .	11 27-6	1,100 00	84 00	1,184 00	105	—
90	94	Tewksbury .	11 23	2,100 00	—	2,100 00	187	—
64	95	Longmeadow .	11 21-9	2,800 00	139 54	2,939 54	262	15 00
74	96	Methuen .	11 19	7,050 00	—	7,050 00	630	—
108	97	North Reading .	11 07-1	1,600 00	127 00	1,727 00	156	—
105	98	Athol .	11 02-7	6,500 00	212 11	6,712 11	645	—
55	99	Beverly .	11 02-6	14,959 25	345 50	15,304 70	1,388	—
69	100	Bridgewater .	10 95-3	7,300 00	225 09	7,525 09	687	—
101	101	Tyngsborough .	10 95-2	1,150 00	—	1,150 00	105	—
96	102	Rehoboth .	10 92-5	3,000 00	277 51	3,277 51	300	—

## SCHOOL-RETURNS.

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34	Merrimac . . . . .	10 89-9	4,000 00	-	4,000 00	367
94	Attleborough . . . . .	10 88-2	17,500 00	770 04	18,270 04	1,679
77	Georgetown . . . . .	10 84 3	4,500 00	-	4,500 00	415
83	Ipswich . . . . .	10 83-2	5,800 00	211 76	6,011 76	555
75	Saugus . . . . .	10 82-3	5,000 00	-	5,000 00	462
148	Easton . . . . .	10 77-7	8,632 00	3-3 84	8,955 84	831
119	Westminster . . . . .	10 73 3	2,876 43	-	2,876 43	268
81	Medfield . . . . .	10 62-8	2,200 00	-	2,200 00	207
93	Sherborn . . . . .	10 59-2	1,600 00	52 39	1,652 39	156
129	Pittsfield . . . . .	10 52 3	24,750 00	-	24,750 00	2,352
103	Chelmsford . . . . .	10 50-4	4,500 00	226 86	4,726 86	450
112	Leominster . . . . .	10 46-1	8,735 00	-	8,735 00	835
175	Douglas . . . . .	10 44-2	4,000 00	313 97	4,313 97	416
144	Plainfield . . . . .	10 39-9	600 00	23 95	623 95	60
186	Sharon . . . . .	10 38-8	2,300 00	161 90	2,461 90	237
200	Chicopee . . . . .	10 38-5	21,850 00	-	21,850 00	2,104
133	Brewster . . . . .	10 37-7	2,200 00	-	2,200 00	212
155	Westford . . . . .	10 34-5	3,000 00	-	3,000 00	290
84	Winthrop . . . . .	10 31-7	1,300 00	-	1,300 00	126
123	Woburn . . . . .	10 31-3	25,000 00	-	25,000 00	2,424
179	Agawam . . . . .	10 30-1	3,000 00	182 98	3,182 98	309
122	Andover . . . . .	10 29	8,500 00	-	8,500 00	826
121	Newburyport . . . . .	10 07-3	24,679 00	-	24,679 00	2,450
114	Fairhaven . . . . .	10 03	4,250 00	182 42	4,432 42	442
134	Natick . . . . .	10 01-9	16,000 00	-	16,000 00	1,597
126	Tisbury . . . . .	10 00	2,000 00	-	2,000 00	200
136	Brookfield . . . . .	9 86 3	4,450 00	156 00	4,606 00	467
224	Edgartown . . . . .	9 84-2	2,500 00	78 61	2,578 61	262
141	Northbridge . . . . .	9 83-5	7,400 00	183 15	7,583 15	771
153	Holliston . . . . .	9 82-9	5,800 00	146 63	5,946 63	605
111	Ashland . . . . .	9 82-4	3,500 00	242 84	3,742 84	381
139	Braintree . . . . .	9 81-9	6,800 00	417 33	7,217 33	735
						96 00

*Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.*

For 1878-79.	For 1879-80.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
171	135	Norfolk	\$9 77.4	\$1,500 00	\$83 52	\$1,583 52	162	-
219	136	Bellingham	9 77.3	1,800 00	272 04	2,072 04	212	-
262	137	Provincetown	9 73.4	8,780 00	-	8,780 00	902	-
149	138	Danvers	9 72.5	10,200 00	303 10	10,503 10	1,080	-
82	139	Lawrence	9 71.7	66,429 07	-	66,429 07	6,836	-
146	140	Westborough	9 71.5	7,500 00	-	7,500 00	772	-
116	141	Boxford	9 68.7	1,070 00	170 00	1,240 00	128	-
131	142	Northampton	9 67.4	19,600 00	-	19,600 00	2,026	-
142	143	Templeton	9 61.5	4,500 00	-	4,500 00	468	-
147	144	Middleborough	9 60.5	8,500 00	-	8,500 00	885	-
160	145	Franklin	9 57.6	6,100 00	-	6,100 00	637	-
150	146	Gardner	9 55.8	7,000 00	245 07	7,245 07	758	-
127	147	Ashby	9 50.6	1,550 00	104 08	1,654 08	174	-
225	148	Ayer	9 48.5	3,500 00	-	3,500 00	369	-
71	149	Marshfield	9 43.4	2,500 00	-	2,500 00	265	-
130	150	Great Barrington	9 43.1	7,500 00	186 02	7,686 02	815	-
101	151	Swansey	9 41.8	2,100 11	-	2,100 11	223	-
140	152	Royalston	9 40.7	1,800 00	90 90	1,890 90	201	\$170 00
88	153	Shirley	9 36.3	1,800 00	110 01	1,910 01	204	-
117	154	Wayland	9 35.6	3,500 00	139 35	3,639 35	389	-
238	155	Berkley	9 32.8	1,350 00	67 80	1,417 80	152	-
221	156	Lunenburg	9 30.2	1,311 41	102 60	1,414 01	152	-
189	157	Milford	9 27.6	19,000 00	311 74	19,311 74	2,082	-
266	158	Boylston	9 26.7	1,500 00	75 42	1,575 42	170	-
143	159	Marblehead	9 23.1	13,109 87	348 68	13,458 55	1,458	-
199	160	Wareham	9 20.5	4,750 00	313 00	5,063 00	550	-

165	Amesbury .	9 15-9	5,381 60	150 49	5,532 09	604
166	West Springfield	9 13-6	6,500 00	251 88	6,751 88	739
167	Leicester .	9 07-4	4,867 13	204 99	5,072 12	559
168	Millbury .	9 05-8	7,500 00	-	7,500 00	828
169	Hopkinton	9 05-5	8,000 00	376 77	8,376 77	925
170	Orange .	9 05-1	4,100 00	-	4,100 00	453
171	Dartmouth	9 02-5	4,300 00	274 44	4,744 44	529
172	Salisbury .	9 00-4	6,000 00	158 97	6,158 97	684
173	Ashfield .	8 98-9	1,600 00	-	1,600 00	178
174	Dunstable .	8 95-5	600 00	-	600 00	67
175	Stow .	8 95-3	1,600 00	109 96	1,709 96	191
176	Amherst .	8 93-1	6,419 84	135 61	6,555 45	734
177	Hull .	8 93	500 00	-	500 00	56
178	Acton .	8 92-2	2,500 00	203 49	2,703 49	303
179	Southbridge	8 89-6	7,460 00	2,040 68	9,500 68	1,068
180	Wilmington	8 85-7	1,550 00	-	1,550 00	175
181	Truro .	8 83-8	1,400 00	31 78	1,431 78	162
182	Charlton .	8 82-3	3,000 00	-	3,000 00	340
183	Mansfield .	8 77-5	4,300 00	-	4,300 00	490
184	Fall River .	8 74-2	83,790 58	-	83,790 58	9,585
185	Harvard .	8 69-6	2,000 00	-	2,000 00	230
186	Lee .	8 65-1	6,800 00	-	6,800 00	786
187	Freetown .	8 64-3	1,800 00	136 14	1,936 14	224
188	Princeton .	8 64-2	1,400 00	-	1,400 00	162
189	Townsend .	8 63-5	3,100 00	-	3,100 00	359
190	Burlington	8 62-1	1,000 00	-	1,000 00	116
191	Dennis .	8 61-5	5,000 00	83 03	5,083 03	590
192	BillERICA .	8 58-9	2,800 00	154 64	2,954 64	344
193	Gloucester .	8 52-8	31,000 00	540 54	31,540 54	4,050
194	Russell .	8 52-8	800 00	257 43	1,057 43	124
195	Chesterfield	8 51-9	900 00	250 00	1,150 00	135
196	West Bridgewater	8 51-1	2,800 00	-	2,800 00	329
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Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1878-79.	For 1879-80.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
154	193	Hubbardston	\$8 51	\$2,000 00	-	\$2,000 00	235	-
228	194	Raynham	8 49	2,500 00	\$166 00	2,666 00	314	-
249	195	Dalton	8 47.5	3,000 00	-	3,000 00	354	-
211	196	Montague	8 47.4	7,000 00	-	7,000 00	826	-
191	197	Oxford	8 43.9	4,000 00	-	4,000 00	474	-
118	198	Grafton	8 42.6	6,800 00	-	6,800 00	807	-
220	199	West Newbury	8 39.9	2,990 21	-	2,990 21	356	-
109	200	Cheshire	8 39.8	2,500 00	86 42	2,586 42	308	-
167	201	South Abington	8 34.7	4,000 00	198 40	4,198 40	503	-
196	202	Wenham	8 33.5	1,200 00	67 00	1,267 00	152	-
281	203	Marion	8 33	1,200 00	49 47	1,249 47	150	-
176	204	Monson	8 29.7	4,600 00	245 22	4,845 22	584	-
145	205	Charlemont	8 26.3	1,000 00	66 00	1,066 00	129	-
163	206	Acushnet	8 25.2	1,600 00	83 41	1,683 41	204	-
254	207	Ilamilton	8 22.8	800 00	72 15	872 15	106	-
209	208	Northfield	8 22.1	2,000 00	178 49	2,178 49	265	-
162	209	South Scituate	8 21.8	2,500 00	129 68	2,629 68	320	-
207	210	Deerfield	8 20.8	4,500 00	162 10	4,662 10	568	\$50 00
166	211	Rutland	8 18.2	1,800 00	-	1,800 00	220	73 15
161	212	Medway	8 15.4	6,000 00	286 76	6,286 76	771	-
265	213	Montgomery	8 10.4	425 00	36 94	461 94	57	-
269	214	Blackstone	8 09	7,300 00	458 10	7,758 10	959	-
214	215	North Brookfield	8 02.5	6,500 00	-	6,500 00	810	-
212	216	New Salem	8 01.4	1,100 00	30 00	1,130 00	141	-
222	217	Hudson	8 01	6,200 00	-	6,200 00	774	-
201	218	Ashburnham	7 99 4	2,800 00	116 95	2,916 95	365	-

### SCHOOL-RETURNS.

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Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.

For 1878-79.	For 1878-80.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
256	251	Middleton .	\$7 26-3	\$1,300 00	-	\$1,300 00	179	-
255	252	Marlborough	7 26	15,000 00	-	15,000 00	2,066	-
275	253	Brimfield .	7 23-9	1,600 00	-	1,600 00	221	\$250 00
271	254	Winchendon	7 23-2	4,491 32	-	4,491 32	621	-
152	255	Halifax .	7 23	600 00	-	600 00	83	-
233	256	Wilbraham	7 22-9	1,800 00	\$108 50	1,908 50	264	-
259	257	Worthington	7 21-2	800 00	166 40	966 40	134	425 00
264	258	Norton .	7 17-5	1,800 00	209 00	2,009 00	280	-
206	259	Westport .	7 16-2	3,500 00	216 86	3,716 86	519	-
326	260	Prescott .	7 12-5	600 00	27 00	627 00	88	-
282	261	Tolland .	7 11-6	500 00	55 00	555 00	78	56 00
313	262	Rowe .	7 09-4	650 00	31 00	681 00	96	-
270	263	Huntington	7 06-9	1,300 00	57 18	1,357 18	192	10 00
185	264	Phillipston	7 03-8	800 00	79 74	879 74	125	-
231	265	Enfield .	7 02-8	1,200 00	114 38	1,314 38	187	-
158	266	Lakeville .	6 97-1	1,464 00	-	1,464 00	210	-
236	267	Hanson .	6 95-7	1,600 00	-	1,600 00	230	-
291	268	Webster .	6 94-8	6,300 00	513 13	6,813 13	982	-
138	269	Nantucket .	6 94-3	3,964 00	-	3,964 00	571	-
218	270	Ludlow .	6 94	2,200 00	-	2,200 00	317	-
190	271	Eastham .	6 90	1,000 00	-	1,000 00	145	-
302	272	Somerset .	6 89 6	2,364 68	338 63	2,703 31	392	-
273	273	Pembroke .	6 87-6	1,650 00	96 52	1,746 52	254	-
303	274	Slutesbury	6 87-3	600 00	94 24	694 24	101	-
252	275	Egremont .	6 78 8	1,000 00	45 34	1,045 34	154	-
284	276	Erving .	6 76-5	1,000 00	21 60	1,021 60	151	-

## SCHOOL-RETURNS.

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290	Spencer	.	.	.	6 66.7	9,800 00	-	9,800 00	1,470
248	Rochester	.	.	.	6 66	1,200 00	112 06	1,312 06	197
314	Colrain	.	.	.	6 64 5	2,000 00	-	2,000 00	301
298	Oakham	.	.	.	6 59.5	800 00	90 37	890 37	135
292	Bolton	.	.	.	6 59.3	1,200 00	-	1,200 00	182
289	Chatham	.	.	.	6 57.7	2,800 00	28 04	2,828 04	430
308	Maynard	.	.	.	6 57.2	3,000 00	128 25	3,128 25	476
250	Gill	.	.	.	6 55.7	800 00	-	800 00	122
213	North Adams	.	.	.	6 55	13,800 00	348 00	14,148 00	2,160
331	Washington	.	.	.	6 47.8	800 00	48 83	848 83	131
280	Hampden	.	.	.	6 45.5	1,100 00	81 31	1,181 31	183
283	Dana	.	.	.	6 42	700 00	38 27	738 27	115
293	Sheffield	.	.	.	6 36.5	2,560 00	272 33	2,832 33	445
312	Southampton	.	.	.	6 36.1	1,200 00	72 20	1,272 20	200
277	Lynnfield	.	.	.	6 33.2	700 00	-	700 00	118
279	Middlefield	.	.	.	6 33.1	800 00	137 00	937 00	148
237	Williamstown	.	.	.	6 28	4,000 00	-	4,000 00	637
307	Holden	.	.	.	6 27.9	2,802 00	186 59	2,988 59	476
324	Mount Washington	.	.	.	6 25	200 00	-	200 00	32
295	Berlin	.	.	.	6 21.6	1,000 00	94 09	1,094 09	176
296	Mendon	.	.	.	6 13.9	1,200 00	205 81	1,405 81	229
246	Greenwich	.	.	.	6 11.9	600 00	36 22	636 22	104
168	Harwich	.	.	.	6 11.7	4,000 00	92 05	4,092 05	669
243	Becket	.	.	.	6 03.6	1,540 00	83 70	1,623 70	269
332	Carver	.	.	.	6 01.9	1,200 00	106 24	1,306 24	217
321	Leyden	.	.	.	6 00	600 00	-	600 00	100
285	Gosnold	.	.	.	5 86.4	125 00	21 60	146 60	25
294	Hadley	.	.	.	5 85.5	2,500 00	-	2,500 00	427
300	Newbury	.	.	.	5 84.3	1,500 00	95 00	1,595 00	273
328	Westhampton	.	.	.	5 84.1	800 00	17 77	817 77	140
272	West Boylston	.	.	.	5 83	3,300 00	-	3,300 00	566
288	Rockport	.	.	.	5 76.4	4,519 17	-	4,519 17	784
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## BOARD OF EDUCATION.

*Showing the Comparative Amount of Money appropriated by the different Towns in the State — Continued.*

		TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the sup- port of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contrib- uted for board and fuel.
	For 1878-79.							
	For 1879-80.							
286	309	Blandford . . . . .	\$5 68-7	\$1,200 00	\$79 51	\$1,279 51	225	-
310	310	Whately . . . . .	5 68-7	1,200 00	-	1,200 00	211	-
319	311	Peru . . . . .	5 68-2	500 00	-	500 00	88	-
257	312	Granville . . . . .	5 63-9	1,500 00	-	1,500 00	266	-
274	313	Sandisfield . . . . .	5 60 5	1,200 00	50 00	1,250 00	223	\$215 00
329	314	Williamsburg . . . . .	5 50 8	2,184 61	79 20	2,263 81	411	-
245	315	West Stockbridge . . . . .	5 50 6	2,500 00	-	2,500 00	454	-
258	316	Sturbridge . . . . .	5 49-5	3,000 00	-	3,000 00	516	-
335	317	Hinsdale . . . . .	5 49-2	1,900 00	-	1,900 00	346	-
296	318	Hardwick . . . . .	5 44-3	2,000 00	106 32	2,106 32	387	-
315	319	Pelham . . . . .	5 34-1	650 00	39 02	689 02	129	-
278	320	Rowley . . . . .	5 25-5	1,340 00	-	1,340 00	255	-
301	321	New Marlborough . . . . .	5 25 2	2,000 00	137 50	2,137 50	407	-
311	322	Sutton . . . . .	5 25-2	3,600 00	160 33	3,760 33	716	-
320	323	Otis . . . . .	5 24-3	900 00	69 87	969 87	185	20 00
299	324	Lanesborough . . . . .	5 21-7	1,200 00	-	1,200 00	230	20 00
322	325	Southwick . . . . .	5 13-1	1,000 00	87 72	1,087 72	212	-
287	326	Florida . . . . .	5 04-4	575 00	-	575 00	114	11 50
316	327	Tyringham . . . . .	4 83-6	600 00	-	600 00	122	28 60
336	328	Buckland . . . . .	4 80-5	1,600 00	81 70	1,681 70	350	-
342	329	Savoy . . . . .	4 79-8	550 00	44 95	594 95	124	125 00
318	330	Auburn . . . . .	4 75-2	1,050 00	104 73	1,154 73	243	8 00
305	331	Cumington . . . . .	4 68 9	700 00	31 47	731 47	156	350 00
304	332	Chester . . . . .	4 54-4	1,200 00	81 57	1,281 57	282	40 00
309	333	Hancock . . . . .	4 43-8	500 00	32 55	532 55	120	152 50
337	334	Goshen . . . . .	4 41-1	300 00	-	300 00	68	104 00

## SCHOOL-RETURNS.

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323	335	Hatfield .	.	.	4 33.4	1,400 00	-	1,400 00	323	673 00
338	336	Richmond .	.	.	4 09.7	800 00	52 12	852 12	208	30 00
317	337	Wales .	.	.	3 89.2	650 00	66 18	716 18	184	-
339	338	Clarksburg	.	.	3 76	650 00	41 86	691 86	184	-
325	339	Windsor .	.	.	3 70.2	400 00	48 00	448 00	121	12 00
333	340	New Ashford	.	.	3 67.2	93 00	20 83	113 83	31	-
341	341	Monroe .	.	.	3 57.1	200 00	-	200 00	56	-
344	342	Gay Head .	.	.	3 46.1	90 00	-	90 00	26	-
340	343	Holland .	.	.	3 43.2	200 00	23 08	223 08	65	16 00
343	344	Bernardston	.	.	3 33.3	550 00	-	550 00	165	-
345	345	Cottage City	.	.	-	-	-	-	-	-

## GRADUATED TABLES — (COUNTY TABLES) — FIRST SERIES.

Table showing the Comparative Amount of Money appropriated by the different Towns in each of the Counties in the State, for the Education of each Child in the Town, between the Ages of 5 and 15 Years.

## BARNSTABLE COUNTY.

		TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
For 1878-79.	For 1879-80.							
1	1	FALMOUTH	\$14 53.1	\$4,900 00	\$200 46	\$5,100 46	351	—
2	2	Barnstable.	13 28.1	9,000 00	84 11	9,084 11	684	—
5	3	Yarmouth.	12 66	3,800 00	111 68	3,911 68	309	—
8	4	Sandwich.	12 17.6	7,000 00	257 00	7,257 00	596	\$85 00
11	5	Mashpee.	11 69	500 00	26 00	526 00	45	—
6	6	Wellfleet.	11 50.7	4,200 00	—	4,200 00	365	—
4	7	Orleans.	11 32.1	2,400 00	—	2,400 00	212	—
7	8	Brewster.	10 37.7	2,200 00	—	2,200 00	212	—
13	9	Provincetown.	9 73.4	8,780 00	—	8,780 00	902	—
9	10	Truro.	8 83.8	1,400 00	31 78	1,431 78	162	—
10	11	Dennis.	8 61.5	5,000 00	83 03	5,083 03	590	64 00
8	12	Eastham.	6 90	1,000 00	—	1,000 00	145	—
14	13	Chatham.	6 57.7	2,800 00	28 04	2,828 04	430	—
12	14	Harwich.	6 11.7	4,000 00	92 05	4,092 05	669	—

## BERKSHIRE COUNTY.

1	1	STOCKBRIDGE.	\$12 33.4	\$4,200 00	\$141 65	\$4,341 65	352	—
8	2	Pittsfield.	10 52.3	24,750 00	—	24,750 00	2,352	—

# SCHOOL-RETURNS.

XCV

4	3	Great Barrington	.	.	9 43.1	7,500 00	186 02	7,686 02	815	-
5	4	Lee . . .	.	.	8 65.1	6,800 00	-	6,800 00	786	\$18 00
12	5	Dalton . . .	.	.	8 47.5	3,000 00	-	3,000 00	354	-
2	6	Cheshire . . .	.	.	8 39.8	2,500 00	86 42	2,586 42	308	-
6	7	Lenox . . .	.	.	7 93.3	3,300 00	-	3,300 00	416	50 00
8	8	Alford . . .	.	.	7 72.3	471 00	23 25	491 25	64	-
7	9	Adams . . .	.	.	7 60.1	8,710 53	-	8,710 53	1,146	-
17	10	Monterey . . .	.	.	7 42.8	800 00	98 80	898 80	121	38 00
13	11	Egremont . . .	.	.	6 78.8	1,000 00	45 31	1,045 31	154	-
12	12	North Adams	.	.	6 55	13,800 00	348 00	14,148 00	2,160	-
26	13	Washington . . .	.	.	6 47.8	800 00	48 83	848 83	131	-
16	14	Sheffield . . .	.	.	6 36.5	2,560 00	272 33	2,832 33	445	-
10	15	Williamstown . . .	.	.	6 28	4,000 00	-	4,000 00	637	-
24	16	Mount Washington	.	.	6 25	200 00	-	200 00	32	-
27	17	Becket . . .	.	.	6 03.6	1,540 00	83 70	1,623 70	269	70 00
22	18	Peru . . .	.	.	5 68.2	500 00	-	500 00	88	-
14	19	Sandisfield . . .	.	.	5 60.5	1,200 00	50 00	1,250 00	223	215 00
11	20	West Stockbridge	.	.	5 50.6	2,500 00	-	2,500 00	454	-
29	21	Hinsdale . . .	.	.	5 49.2	1,900 00	-	1,900 00	346	-
19	22	New Marlborough	.	.	5 25.2	2,000 00	137 50	2,137 50	407	-
23	23	Otis . . .	.	.	5 21.3	900 00	69 87	969 87	185	20 00
18	24	Lanesborough . . .	.	.	5 21.7	1,200 00	-	1,200 00	230	20 00
15	25	Florida . . .	.	.	5 04.4	575 00	-	575 00	114	11 50
21	26	Tyringham . . .	.	.	4 83.6	600 00	-	600 00	122	28 60
32	27	Savoy . . .	.	.	4 79.8	550 00	44 95	591 95	121	125 00
20	28	Hancock . . .	.	.	4 43.8	500 00	32 55	532 55	120	152 50
30	29	Richmond . . .	.	.	4 09.7	800 00	52 12	852 12	208	30 00
31	30	Clarksburg . . .	.	.	3 76	650 00	41 86	691 86	184	-
25	31	Windsor . . .	.	.	3 70.2	400 00	48 00	448 00	121	12 00
28	32	New Ashford . . .	.	.	3 67.2	93 00	20 83	113 83	31	-



## BRISTOL COUNTY.

		TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the sup- port of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contrib- uted for board and fuel.
For 1878-79.	For 1879-80.							
1	1	NEW BEDFORD	\$15 21 6	\$63,346 40	\$684 00	\$64,030 40	4,208	-
2	2	Taunton	11 95 6	38 810 60	-	38,810 60	3,246	-
4	3	Rehoboth	10 92 5	3,000 00	277 51	3,277 51	300	-
3	4	Attleborough	10 88 2	17,500 00	770 04	18,270 04	1,679	-
7	5	Easton	10 77 7	8,632 00	323 84	8,955 84	831	-
6	6	Fairhaven	10 03	4,250 00	182 42	4,432 42	442	-
5	7	Swansey	9 41 8	2,100 11	-	2,100 11	223	-
16	8	Berkley	9 32 8	1,350 00	67 80	1,417 80	152	-
10	9	Dartmouth	9 02 5	4,500 00	274 44	4,774 44	529	-
11	10	Mansfield	8 77 5	4,300 00	-	4,300 00	490	-
12	11	Fall River	8 74 2	83,790 58	-	83,790 58	9,585	-
9	12	Freetown	8 64 3	1,800 00	136 14	1,936 14	224	-
15	13	Raynham	8 49	2,500 00	166 00	2,666 00	314	-
8	14	Acushnet	8 25 2	1,600 00	83 41	1,683 41	204	-
18	15	Seekonk	7 82 6	1,800 00	-	1,800 00	230	-
14	16	Dighton	7 79	2,200 00	129 15	2,329 15	299	\$71 00
17	17	Norton	7 17 5	1,800 00	209 00	2,009 00	280	-
13	18	Westport	7 16 2	3,500 00	216 86	3,716 86	519	-
19	19	Somerset	6 89 6	2,364 68	338 63	2,703 31	392	-

## DUKES COUNTY.

1	3							
1	1	TISBURY	\$10 00	\$2,000 00	-	\$2,000 00	200	-
3	2	Edgartown	9 84 2	2,500 00	\$78 61	2,578 61	262	-

### SCHOOL-RETURNS.

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[illegible]

## ESSEX COUNTY. — CONTINUED.

	For 1878-79.		TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
27	25		West Newbury . . . . .	\$8 39 9	\$2,990 21	—	\$2,990 21	356	—
26	26		Wenham . . . . .	8 33-5	1,200 00	\$67 00	1,267 00	152	—
29	27		Hamilton . . . . .	8 22-8	800 00	72 15	872 15	106	—
25	28		Essex . . . . .	7 64-3	2,400 00	—	2,400 00	314	—
28	29		Topsfield . . . . .	7 42-9	1,200 00	107 57	1,307 57	176	—
31	30		Groveland . . . . .	7 28-1	3,000 00	—	3,000 00	412	—
30	31		Middleton . . . . .	7 26-3	1,300 00	—	1,300 00	179	—
33	32		Lynnfield . . . . .	6 33-2	700 00	—	700 00	118	—
35	33		Newbury . . . . .	5 84-3	1,500 00	95 00	1,595 00	273	—
32	34		Rockport . . . . .	5 76-4	4,519 17	—	4,519 17	784	—
34	35		Rowley . . . . .	5 25-5	1,340 00	—	1,340 00	255	—

## FRANKLIN COUNTY.

1	1		GREENFIELD . . . . .	\$12 30-1	\$8,000 00	\$205 10	\$8,205 10	667	—
2	2		Shelburne . . . . .	12 11-5	3,000 00	113 50	3,113 50	257	—
4	3		Orange . . . . .	9 05 1	4,100 00	—	4,100 00	453	—
6	4		Ashfield . . . . .	8 98-9	1,600 00	—	1,600 00	178	\$250 00
11	5		Montague . . . . .	8 47-4	7,000 00	—	7,000 00	826	—
3	6		Charlemont . . . . .	8 26-3	1,000 00	66 00	1,066 00	129	—
10	7		Northfield . . . . .	8 22-1	2,000 00	178 49	2,178 49	265	—
9	8		Deerfield . . . . .	8 20-8	4,500 00	162 10	4,662 10	568	50 00
12	9		New Salem . . . . .	8 01-4	1,100 00	30 00	1,130 00	141	—
15	10		Hawley . . . . .	7 93-7	1,000 00	—	1,000 00	126	75 00

7	11	Wendell . . . . .	7 86	700 00	31 00	731 00	93
8	12	Warwick . . . . .	7 75·2	1,000 00	-	1,000 00	129
13	13	Sunderland . . . . .	7 54·7	1,200 00	-	1,200 00	159
5	14	Conway . . . . .	7 51·9	2,000 00	-	2,000 00	266
23	15	Leverett . . . . .	7 43·8	800 00	47 90	847 90	114
14	16	Heath . . . . .	7 36·8	700 00	-	700 00	95
21	17	Rowe . . . . .	7 09·4	650 00	31 00	681 00	96
19	18	Shutesbury . . . . .	6 87·3	600 00	94 24	694 24	101
17	19	Erving . . . . .	6 76·5	1,000 00	21 60	1,021 60	151
22	20	Colrain . . . . .	6 64·5	2,000 00	-	2,000 00	301
16	21	Gill . . . . .	6 55·7	800 00	-	800 00	122
18	22	Leyden . . . . .	6 00	600 00	-	600 00	100
20	23	Whately . . . . .	5 68·7	1,200 00	-	1,200 00	211
24	24	Buckland . . . . .	4 80·5	1,600 00	81 70	1,681 70	350
25	25	Monroe . . . . .	3 57·1	200 00	-	200 00	56
26	26	Barnardston . . . . .	3 33·3	550 00	-	550 00	165

## HAMPDEN COUNTY.

1	1	SPRINGFIELD . . . . .	\$14 75·4	\$81,500 00	-	\$81,500 00	5,524
2	2	Westfield . . . . .	12 70 9	17,750 00	\$424 75	18,174 75	1,430
3	3	Longmeadow . . . . .	11 21·9	2,800 00	139 54	2,939 54	262
7	4	Chicopee . . . . .	10 38·5	21,850 00	-	21,850 00	2,101
6	5	Agawan . . . . .	10 30·1	3,000 00	182 98	3,182 98	309
4	6	West Springfield . . . . .	9 13·6	6,500 00	251 88	6,751 88	739
21	7	Russell . . . . .	8 52·8	800 00	257 43	1,057 43	121
5	8	Monson . . . . .	8 29·7	4,600 00	245 22	4,845 22	584
13	9	Montgomery . . . . .	8 10·4	425 00	36 94	461 94	57
8	10	Palmer . . . . .	7 91	7,500 00	244 19	7,744 19	979
11	11	Holyoke . . . . .	7 89·6	27,760 42	561 26	28,321 68	3,587
14	12	Brimfield . . . . .	7 23·9	1,600 00	-	1,600 00	221
							400 00
							250 00

## BOARD OF EDUCATION.

## HAMPDEN COUNTY — CONCLUDED.

For 1878-79.	For 1879-80.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
10	13	Wilbraham	\$7 22.9	\$1,800 00	\$108 50	\$1,908 50	264	-
16	14	Tolland	7 11.6	500 00	55 00	555 00	78	\$56 00
9	15	Ludlow	6 94	2,200 00	-	2,200 00	317	-
15	16	Hampden	6 45.5	1,100 00	81 31	1,181 31	183	-
17	17	Blandford	5 68.7	1,200 00	79 51	1,279 51	225	-
12	18	Granville	5 63.9	1,500 00	-	1,500 00	266	-
20	19	Southwick	5 13.1	1,000 00	87 72	1,087 72	212	-
18	20	Chester	4 54.4	1,200 00	81 57	1,281 57	282	40 00
19	21	Wales	3 89.2	650 00	66 18	716 18	184	-
22	22	Holland	3 43.2	200 00	23 08	223 08	65	16 00

## HAMPSHIRE COUNTY.

2	1	GRANBY	\$12 19.2	\$1,700 00	\$31 29	\$1,731 29	142	-
1	2	South Hadley	12 15.9	7,500 00	123 63	7,623 63	627	-
5	3	Plainfield	10 39.9	600 00	23 95	623 95	60	-
4	4	Northampton	9 67.4	19,600 00	-	19,600 00	2,026	-
3	5	Amherst	8 93.1	6,419 84	135 61	6,555 45	734	\$50 00
9	6	Chesterfield	8 51.9	900 00	250 00	1,150 00	135	175 00
7	7	Easthampton	7 85.9	6,550 00	106 56	6,656 56	847	-
14	8	Ware	7 72.3	6,750 00	-	6,750 00	874	-
11	9	Belchertown	7 52	3,500 00	109 72	3,609 72	480	-
10	10	Worthington	7 21.2	800 00	166 40	966 40	134	425 00

## SCHOOL-RETURNS.

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21	11	Prescott	7 12.5	600 00	27 00	627 00	88
12	12	Huntington	7 06.9	1,300 00	57 18	1,357 18	192
8	13	Enfield	7 02.8	1,200 00	114 38	1,314 38	187
18	14	Southampton	6 36.1	1 200 00	72 20	1,272 20	200
15	15	Middlefield	6 33.1	800 00	137 00	937 00	148
6	16	Greenwich	6 11.7	600 00	36 22	636 22	104
16	17	Hadley	5 85.5	2,500 00	-	2,500 00	427
13	18	Westhampton	5 84.1	800 00	17 77	817 77	140
22	19	Williamsburg	5 50.8	2,184 61	79 20	2,263 81	411
19	20	Pelham	5 34.1	650 00	39 02	689 02	129
17	21	Cummingtown	4 68.9	700 00	31 47	731 47	156
23	22	Goshen	4 41.1	300 00	-	300 00	68
20	23	Hatfield	4 33.4	1,400 00	-	1,400 00	323
							350 00
							104 00
							673 00

## MIDDLESEX COUNTY.

1	1	NEWTON	\$22 79.1	\$67,995 57	\$1,014 30	\$69,009 87	3,028	-
2	2	Arlington	20 93.6	17,000 00	-	17,000 00	812	-
4	3	Lexington	19 52.4	8,200 00	-	8,200 00	420	-
3	4	Winchester	18 83.5	11,000 00	-	11,000 00	584	-
7	5	Medford	18 54.2	23,705 00	-	23,705 00	1,279	-
5	6	Watertown	17 61.4	15,359 25	-	15,359 25	872	-
17	7	Waltham	17 55.4	31,467 00	270 78	31,737 78	1,808	-
14	8	Weston	16 93.2	3,725 00	-	3,725 00	220	\$10 00
9	9	Cambridge	16 34.9	145,258 50	-	145,258 50	8,885	-
12	10	Somerville	15 59	70,155 25	-	70,155 27	4,500	-
13	11	Belmont	15 47.6	6,500 00	-	6,500 00	420	-
10	12	Reading	15 40	7,500 00	-	7,500 00	487	-
6	13	Concord	15 03	8,040 34	-	8,040 34	535	-
19	14	Melrose	14 88	12,500 00	-	12,500 00	840	-
11	15	Malden	14 63.1	31,500 00	-	31,500 00	2,153	-



## BOARD OF EDUCATION.

## MIDDLESEX COUNTY -- CONCLUDED.

For 1878-79.	For 1879-80.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
15	16	Framingham	\$14 48-4	\$14,000 00	\$338 98	\$14,338 98	990	\$117 00
16	17	Groton	14 46-2	4,700 00	-	4,700 00	325	-
22	18	Everett	13 35-3	9,400 00	401 33	9,801 33	734	77 40
18	19	Stoneham	13 30-3	11,600 00	-	11,600 00	872	-
23	20	Lowell	13 23-5	111,086 74	-	111,086 74	8,393	-
30	21	Littleton	12 42-1	1,897 95	76 95	1,974 90	159	41 35
47	22	Dracut	12 22-7	2,800 00	122 30	2,922 30	239	-
21	23	Wakefield	12 12-4	10,500 00	-	10,500 00	866	-
26	24	Carlisle	12 07	700 00	-	700 00	58	-
8	25	Boxborough	11 99-8	600 59	47 81	647 90	54	-
31	26	Bedford	11 92-1	1,800 00	-	1,800 00	151	-
24	27	Sudbury	11 54-2	2,000 00	216 00	2,216 00	192	-
20	28	Lincoln	11 48-6	1,700 00	-	1,700 00	148	-
28	29	Tewksbury	11 23	2,100 00	-	2,100 00	187	-
33	30	North Reading	11 07-1	1,600 00	127 00	1,727 00	156	-
25	31	Tyngsborough	10 95-2	1,150 00	-	1,150 00	105	-
29	32	Sherborn	10 59-2	1,600 00	52 39	1,652 39	156	-
32	33	Chelmsford	10 50-4	4,500 00	226 86	4,726 86	450	-
41	34	Westford	10 34-5	3,000 00	-	3,000 00	290	-
36	35	Woburn	10 31-3	25,000 00	-	25,000 00	2,424	-
39	36	Natick	10 01-9	16,000 00	-	16,000 00	1,597	-
40	37	Holliston	9 82-9	5,800 00	146 63	5,946 63	605	-
34	38	Ashland	9 82-4	3,500 00	242 84	3,742 84	381	-
38	39	Ashby	9 50-6	1,550 00	104 08	1,654 08	174	-
49	40	Ayer	9 48-5	3,500 00	-	3,500 00	369	-
27	41	Shirley	9 36-3	1,800 00	110 01	1,910 01	204	-

35	42	Wayland .	.	.	9 35 6	3,500 00	139 35	3,639 35	389	-
46	43	Hopkinton .	.	.	9 05 5	8,000 00	376 77	8,376 77	925	-
37	44	Dunstable .	.	.	8 95-5	600 00	-	600 00	67	-
45	45	Stow .	.	.	8 95 3	1,600 00	109 96	1,709 96	191	-
43	46	Acton .	.	.	8 92-2	2,500 00	203 49	2,703 49	303	-
44	47	Wilmington	.	.	8 85-7	1,550 00	-	1,550 00	175	-
42	48	Townsend .	.	.	8 63-5	3,100 00	-	3,100 00	359	20 00
52	49	Burlington	.	.	8 62-1	2,800 00	-	1,000 00	116	-
51	50	Billerica .	.	.	8 58 9	2,800 00	154 64	2,954 64	344	-
48	51	Hudson .	.	.	8 01	6,200 00	-	6,200 00	774	-
54	52	Pepperell .	.	.	7 27-3	2,400 00	-	2,400 00	330	-
50	53	Marlborough	.	.	7 26	15,000 00	-	15,000 00	2,066	-
53	54	Maynard .	.	.	6 57-2	3,000 00	128 25	3,128 25	476	-

## NANTUCKET COUNTY.

		NANTUCKET .	.	.	\$6 94-3	\$3,964 50	-	\$3,964 50	571	-
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## NORFOLK COUNTY.

2	1	BROOKLINE .	.	.	\$26 77-5	\$36,200 00	-	\$36,200 00	1,352	-
1	2	Milton .	.	.	25 92-6	12,885 57	-	12,885 57	497	-
3	3	Dedham .	.	.	17 17 1	18,581 77	\$564 45	19,146 22	1,115	-
4	4	Quincy .	.	.	15 53-9	26,480 00	-	26,480 00	1,704	-
7	5	Needham .	.	.	14 60-3	12,800 00	372 55	13,172 55	902	-
11	6	Norwood .	.	.	13 69	5,750 00	-	5,750 00	420	-
10	7	Walpole .	.	.	13 47-7	5,000 00	-	5,000 00	371	\$5 00

## NORFOLK COUNTY — CONCLUDED.

		TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the sup- port of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contrib- uted for board and fuel.
For 1878-79.	For 1879-80.							
6	8	Hyde Park	\$12 87 1	\$17,800 00	—	\$17,800 00	1,383	—
13	9	Cohasset .	12 51·2	5,000 00	\$242 50	5,242 50	419	—
8	10	Wrentham	12 43 3	5,000 00	209 36	5,209 36	419	—
17	11	Stoughton .	12 18·3	12,000 00	—	12,000 00	985	—
9	12	Holbrook .	11 99·2	4,700 00	132 64	4,832 64	403	—
12	13	Weymouth	11 91·4	24,000 00	722 17	24,722 17	2,075	—
5	14	Randolph .	11 81·6	8,531 24	—	8,531 24	722	—
18	15	Canton .	11 56·2	10,450 00	441 55	10,891 55	942	—
16	16	Foxborough	11 29·9	5,000 00	265 54	5,265 54	466	—
15	17	Dover .	11 27·6	1,100 00	84 00	1,184 00	105	—
14	18	Medfield .	10 62·8	2,200 00	—	2,200 00	207	—
23	19	Sharon .	10 38 8	2,300 00	161 90	2,461 90	237	—
19	20	Braintree .	9 81·9	6,800 00	417 33	7,217 33	735	—
22	21	Norfolk .	9 77·4	1,500 00	83 52	1,583 52	162	—
24	22	Bellingham	9 77·3	1,800 00	272 04	2,072 04	212	—
20	23	Franklin .	9 57·6	6,100 00	—	6,100 00	637	—
21	24	Medway .	8 15 4	6,000 00	286 76	6,286 76	771	—

## PLYMOUTH COUNTY.

For 1878-79.	For 1879-80.							
2	1	KINGSTON .	\$14 39	\$3,450 00	\$104 30	\$3,554 30	247	—
1	2	Hingham .	14 30·2	10,083 30	—	10,083 30	705	—
3	3	Plymouth .	14 06	16,000 00	—	16,000 00	1,138	—

## SCHOOL-RETURNS.

CV

9	Abington . . .	13 00.8	8,000 00	-	8,000 00	615
10	East Bridgewater . . .	12 98.7	5,000 00	-	5,000 00	385
6	Brockton . . .	11 88.5	24,740 48	300 78	25,041 26	2,107
8	Mattapoisett . . .	11 31.6	2,100 00	72 77	2,172 77	192
5	Bridgewater . . .	10 95.3	7,300 00	225 09	7,525 09	887
11	Middleborough . . .	9 60.5	8,500 00	-	8,500 00	885
7	Marshfield . . .	9 43.4	2,500 00	-	2,500 00	265
18	Wareham . . .	9 20.5	4,750 00	313 00	5,063 00	550
4	Ilwaco . . .	8 93	500 00	-	500 00	56
12	West Bridgewater . . .	8 51.1	2,800 00	-	2,800 00	329
16	South Abington . . .	8 34.7	4,000 00	198 40	4,198 40	503
15	Marion . . .	8 33	1,200 00	49 47	1,249 47	150
25	South Scituate . . .	8 21.8	2,500 00	129 68	2,629 68	320
14	Hanover . . .	7 95.1	2,500 00	84 00	2,584 00	325
17	Rockland . . .	7 81.3	7,500 00	-	7,500 00	960
21	Duxbury . . .	7 72.2	2,500 00	202 77	2,702 77	350
23	Plympton . . .	7 33.3	800 00	94 60	894 60	122
26	Scituate . . .	7 32.9	3,700 00	118 36	3,818 36	521
20	Halifax . . .	7 23	600 00	-	600 00	83
12	Lakeville . . .	6 97.1	1,464 00	-	1,464 00	210
13	Hanson . . .	6 95.7	1,600 00	-	1,600 00	230
19	Pembroke . . .	6 87.6	1,650 00	96 52	1,746 52	254
24	Rochester . . .	6 66	1,200 00	112 06	1,312 06	197
22	Carver . . .	6 01.9	1,200 00	106 24	1,306 24	217
27						

## SUFFOLK COUNTY.

1	BOSTON . . .	\$21 92.1	\$1,269,901 81	\$62,174 74	\$1,332,076 55	60,766
4	Revere . . .	13 50.1	5,000 00	103 35	5,103 35	378
2	Chelsea . . .	12 71.5	44,008 72	-	44,008 72	3,461
3	Winthrop . . .	10 31.7	1,300 00	-	1,300 00	126

# BOARD OF EDUCATION.

## WORCESTER COUNTY.

For 1878-79.	For 1879-80.	TOWNS.	Sum appropriated by towns for each child between 5 and 15 yrs. of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
1	1	LANCASTER	\$18 43-8	\$4,978 39	-	\$4,978 39	270	-
7	2	Northborough	15 23-8	3,200 00	-	3,200 00	210	-
4	3	Fitchburg	14 45-4	32,140 00	\$224 38	32,364 38	2,239	-
2	4	New Braintree	13 39-7	1,259 33	-	1,259 33	94	-
3	5	Barre	13 28	4,600 00	194 00	4,794 00	361	-
26	6	Clinton	13 05-4	20,612 86	-	20,612 86	1,579	-
6	7	Worcester	12 62-1	124,024 01	-	124,024 01	9,827	-
5	8	Upton	12 58	4,000 00	-	4,000 00	318	-
12	9	Uxbridge	12 47-4	6,000 00	-	6,000 00	481	-
11	10	Sterling	12 39	2,900 00	111 11	3,011 11	243	-
8	11	Shrewsbury	11 74	2,700 00	-	2,700 00	230	-
9	12	Petersham	11 45	1,850 00	73 36	1,923 36	168	\$100 00
10	13	Southborough	11 42-2	4,000 00	77 61	4,077 61	357	19 58
13	14	Athol	11 02-7	6,500 00	212 11	6,712 11	645	-
17	15	Westminster	10 73-3	2,876 43	-	2,876 43	268	-
14	16	Leominster	10 46-1	8,735 00	-	8,735 00	835	-
29	17	Douglas	10 44-2	4,000 00	343 97	4,343 97	416	-
19	18	Brookfield	9 86-3	4,450 00	156 00	4,606 00	467	-
21	19	Northbridge	9 83-5	7,400 00	183 15	7,583 15	771	-
23	20	Westborough	9 71-5	7,500 00	-	7,500 00	772	-
22	21	Templeton	9 61-5	4,500 00	-	4,500 00	468	-
24	22	Gardner	9 55-8	7,000 00	245 07	7,245 07	758	-
20	23	Royalston	9 40-7	1,800 00	90 90	1,890 90	201	170 00
39	24	Luellenburg	9 30-2	1,311 41	102 60	1,414 01	152	-
32	25	Millford	9 27-6	19,000 00	311 74	19,311 74	2,082	-
44	26	Boylston	9 26-7	1,500 00	75 42	1,575 42	170	-

### SCHOOL-RETURNS.

cvi

15	27	Leicester	.	.	.	9 07.4	4,867 13	204 99	5,072 12	559	-
34	28	Millbury	.	.	.	9 05.8	7,500 00	-	7,500 00	828	-
37	29	Southbridge	.	.	.	8 89.6	7,460 00	2,040 68	9,500 68	1,068	-
35	30	Charlton	.	.	.	8 82.3	3,000 00	-	3,000 00	340	-
30	31	Harvard	.	.	.	8 69.6	2,000 00	-	2,000 00	230	-
28	32	Princeton	.	.	.	8 64.2	1,400 00	-	1,400 00	162	-
25	33	Hubbardston	.	.	.	8 51	2,000 00	-	2,000 00	235	-
33	34	Oxford	.	.	.	8 43.9	4,000 00	-	4,000 00	474	-
35	35	Grafton	.	.	.	8 42.6	6,800 00	-	6,800 00	807	-
27	36	Rutland	.	.	.	8 18.2	1,800 00	-	1,800 00	220	73 15
46	37	Blackstone	.	.	.	8 09	7,300 00	458 10	7,758 10	959	-
38	38	North Brookfield	.	.	.	8 02.5	6,500 00	-	6,500 00	810	-
36	39	Ashburnham	.	.	.	7 99.4	2,800 00	116 95	2,916 95	365	-
40	40	Paxton	.	.	.	7 87.4	1,000 00	-	1,000 00	127	-
18	41	Warren	.	.	.	7 65.3	6,000 00	-	6,000 00	784	-
42	42	Dudley	.	.	.	7 59.3	4,200 00	150 62	4,350 62	573	36 00
45	43	West Brookfield	.	.	.	7 32.4	2,600 00	-	2,600 00	355	-
47	44	Winchendon	.	.	.	7 23.2	4,491 32	-	4,491 32	621	-
31	45	Phillipston	.	.	.	7 03.8	800 00	79 74	879 74	125	-
51	46	Webster	.	.	.	6 91.8	6,300 00	513 13	6,813 13	982	-
50	47	Spencer	.	.	.	6 66.7	9,800 00	-	9,800 00	1,470	21 00
55	48	Oakham	.	.	.	6 59.5	800 00	90 37	890 37	135	-
52	49	Bolton	.	.	.	6 59.3	1,200 00	-	1,200 00	182	-
48	50	Dana	.	.	.	6 42	700 00	38 27	738 27	115	-
51	51	Holden	.	.	.	6 27.9	2,802 00	186 59	2,988 59	476	-
53	52	Berlin	.	.	.	6 21.6	1,000 00	94 09	1,094 09	176	-
41	53	Mendon	.	.	.	6 13.9	1,200 00	205 81	1,405 81	229	-
49	54	West Boylston	.	.	.	5 83	3,300 00	-	3,300 00	566	-
43	55	Sturbridge	.	.	.	5 49.5	3,000 00	-	3,000 00	546	-
54	56	Hardwick	.	.	.	5 44.3	2,000 00	106 32	2,106 32	387	-
57	57	Sutton	.	.	.	5 25.2	3,600 00	160 33	3,760 33	716	-
58	58	Auburn	.	.	.	4 75.2	1,050 00	104 73	1,154 73	243	8 00



GRADUATED TABLES — FIRST SERIES.

*Showing the Comparative Amount of Money appropriated by the different Counties in the State, for the Education of each Child between the Ages of 5 and 15 Years in the County.*

For 1878-79.	For 1879-80.	COUNTIES.	Sum appropriated by counties for each child between 5 and 15 years of age.	Amount raised by taxes for the support of Schools.	Income of Funds, with Dog Tax, appropriated to Schools.	TOTAL.	No. of Children between 5 and 15 years of age.	Amount contributed for board and fuel.
1	1	Suffolk .	\$21 35-8	\$1,320,210 53	\$92,278 09	\$1,382,488 62	64,731	-
2	2	Middlesex .	15 84 1	845,041 21	4,610 22	849,651 43	53,637	\$265 75
3	3	Norfolk .	14 16 6	239,978 58	4,256 31	244,234 89	17,241	5 00
4	4	Essex .	11 13-1	459,365 49	4,271 47	463,636 96	41,651	2,111 00
5	5	Hampden .	10 58	187,435 42	2,927 06	190,362 48	17,996	777 00
6	6	Bristol .	10 45 3	248,544 37	3,859 24	252,403 61	24,147	71 00
7	7	Plymouth .	10 34-2	128,137 78	2,208 04	130,345 82	12,603	-
8	8	Barnstable .	10 20-7	56,980 00	914 15	57,894 15	5,672	149 00
9	9	Dukes .	9 22-5	5,165 00	130 34	5,295 34	574	-
10	10	Worcester .	8 86 9	349,995 88	6,942 14	356,938 02	40,247	427 73
11	11	Franklin .	8 16-5	48,900 00	1,062 63	49,962 63	6,119	698 00
12	12	Hampshire .	8 12-1	68,544 45	1,558 60	70,103 05	8,632	1,805 00
13	13	Berkshire .	7 56-5	100,299 53	1,832 02	102,131 55	13,500	790 60
14	14	Nantucket .	6 94 3	3,964 50	-	3,964 50	571	-
AGGREGATE FOR THE STATE.								
STATE .	.	.	\$13 53-4	\$4,062,562 74	\$96,850 31	\$4,159,413 05	307,321	\$7,100 08

## GRADUATED TABLES — FIRST SERIES.

*Showing the Comparative Amount of Money, including Voluntary Contributions, appropriated by the different Counties in the State for the Education of each Child between the Ages of 5 and 15 Years in the County.*

For 1878-79.	For 1879-80.	COUNTIES.	TOTALS.
1	1	Suffolk . . . . .	\$21 35·8
2	2	Middlesex . . . . .	15 84·6
3	3	Norfolk . . . . .	14 16·6
4	4	Essex . . . . .	11 18·2
6	5	Hampden . . . . .	10 62·1
5	6	Bristol . . . . .	10 45·6
7	7	Plymouth . . . . .	10 34·2
10	8	Barnstable . . . . .	10 23·3
12	9	Dukes . . . . .	9 22·5
9	10	Worcester . . . . .	8 87·9
11	11	Hampshire . . . . .	8 33
13	12	Franklin . . . . .	8 27·9
14	13	Berkshire . . . . .	7 62·4
8	14	Nantucket . . . . .	6 94·3
Aggregate for the State . . . . .			\$13 55·7

# GRADUATED TABLES — SECOND SERIES.

The next table exhibits the appropriation of the cities and towns, as compared with their respective valuations in 1880.

The first column shows the rank of the cities and towns in a similar table for 1878-79, according to their valuation in 1879.

The second column indicates, in numerical order, the precedence of the cities and towns in respect to the liberality of their appropriations for 1879-80, according to their valuation in 1880.

The third consists of the names of the cities and towns, as numerically arranged.

The fourth shows the percentage of taxable property appropriated to the support of the public schools. The result is equivalent in value to mills and hundredths of mills. The decimals are carried to three figures, in order to indicate more perfectly the distinction between the different towns. The first figure (mills) expresses the principal value, and is separated from the last two figures by a point.

The appropriations for schools are not given in the following table, as they may be found by referring to the previous tables; also in the Abstract of School>Returns, commencing on page ii. These appropriations include the sum raised by taxes, the income of the surplus revenue, and of such other funds as the towns may appropriate at their option, either to support common schools, or to pay ordinary municipal expenses. The income of other local funds, and the voluntary contributions, are not included in the estimate. The appropriations are reckoned the same as in the first series of tables, and for the same reasons.

The amount of taxable property in each city and town, according to the last State valuation, is also omitted, as it is already given in the foregoing Abstract of School>Returns.

If the rank assigned to towns in the next tables is compared with the rank of the same town in the former series, it will be seen that they hold, in many instances, a very different place in the scale.

## GRADUATED TABLES — SECOND SERIES.

[FOR THE STATE.]

*A Graduated Table, in which all the Towns in the State are numerically arranged according to the Percentage of their Taxable Property appropriated to the Support of Public Schools for the year 1879-80.*

For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
1	1	HAWLEY . . .	\$0.006-74	9	34	Gloucester . . .	\$0.004-26
4	2	Gay Head . . .	6-31	68	35	Rehoboth . . .	4-26
2	3	Truro . . .	5-85	66	36	Plainfield . . .	4-25
5	4	Orleans . . .	5-59	35	37	Templeton . . .	4-25
37	5	Provincetown . . .	5-48	25	38	Marlborough . . .	4-21
7	6	Wellfleet . . .	5-34	72	39	Shutesbury . . .	4-19
10	7	Sandwich . . .	5-29	34	40	Georgetown . . .	4-18
32	8	Stoughton . . .	5-25	48	41	Peru . . .	4-18
21	9	Monroe . . .	5-04	39	42	Northbridge . . .	4-14
3	10	Eastham . . .	4-94	58	43	Attleborough . . .	4-10
26	11	Dudley . . .	4-74	30	44	Randolph . . .	4-10
20	12	Chatham . . .	4-73	40	45	Pellham . . .	4-09
31	13	Dennis . . .	4-73	65	46	Bellingham . . .	4-08
38	14	Amesbury . . .	4-71	84	47	Rowe . . .	4-08
18	15	Mashpee . . .	4-67	62	48	Mansfield . . .	4-06
17	16	Upton . . .	4-67	22	49	Medway . . .	4-06
8	17	Wareham . . .	4-65	59	50	E. Bridgew'r . . .	4-02
141	18	Clinton . . .	4-64	46	51	Brockton . . .	4-01
19	19	South Hadley, . . .	4-64	116	52	Grauby . . .	4-00
15	20	Haverhill . . .	4-61	77	53	Norfolk . . .	3-98
6	21	Harwich . . .	4-59	41	54	Adams . . .	3-97
63	22	Abington . . .	4-57	12	55	Heath . . .	3-96
111	23	Becket . . .	4-57	73	56	Warwick . . .	3-94
16	24	Holbrook . . .	4-54	219	57	Washington . . .	3-94
78	25	Douglas . . .	4-53	83	58	Shelburne . . .	3-93
27	26	Weymouth . . .	4-50	45	59	Bradford . . .	3-91
47	27	Milford . . .	4-40	173	60	Chesterfield . . .	3-90
103	28	Chicopee . . .	4-39	82	61	Belchertown . . .	3-89
44	29	Wendell . . .	4-38	42	62	Marblehead . . .	3-89
13	30	Granville . . .	4-33	54	63	Stoneham . . .	3-89
23	31	Wrentham . . .	4-32	51	64	Deerfield . . .	3-88
74	32	Hyde Park . . .	4-31	137	65	Blackstone . . .	3-86
24	33	Otis . . .	4-27	120	66	Monterey . . .	3-84

For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	TOWNS.	Percentage of Valuation appropriated to Public Schools — equivalent to mills and hundredths of mills.	For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	TOWNS.	Percentage of Valuation appropriated to Public Schools — equivalent to mills and hundredths of mills.
121	67	Foxborough .	\$#.003-81	110	117	Millbury .	\$#.003-39
36	68	Bridgewater .	3-78	57	118	New Marlboro' .	3-37
85	69	Blandford .	3-78	80	119	Northfield .	3-36
53	70	Monson .	3-78	203	120	Colrain .	3-35
56	71	Plymouth .	3-78	169	121	Pittsfield .	3-34
11	72	Florida .	3-77	158	122	Westhampton, .	3-34
61	73	Lee .	3-76	124	123	Newburyport .	3-31
28	74	Merrimac .	3-76	94	124	Dedham .	3-30
89	75	Arlington .	3-75	112	125	Dighton .	3-29
99	76	Walpole .	3-74	155	126	Holliston .	3-29
97	77	Rockland .	3-71	122	127	Ipswich .	3-28
29	78	Grafton .	3-70	52	128	Barre .	3-26
71	79	Brookfield .	3-68	115	129	Brimfield .	3-25
67	80	Ashfield .	3-67	146	130	Middleboro' .	3-25
98	81	Rutland .	3-65	250	131	Prescott .	3-25
81	82	Salisbury .	3-64	199	132	Hampden .	3-24
96	83	Tyngsborough, .	3-63	143	133	Petersham .	3-24
92	84	Ware .	3-63	102	134	Sandisfield .	3-24
93	85	Palmer .	3-60	165	135	Chelmsford .	3-23
117	86	Paxton .	3-60	105	136	Greenfield .	3-22
140	87	Waltham .	3-60	133	137	Longneadow .	3-22
55	88	Barnstable .	3-59	145	138	Medford .	3-22
258	89	Berkley .	3-59	64	139	N. Reading .	3-22
76	90	Clarksburg .	3-58	101	140	Phillipston .	3-22
79	91	New Salem .	3-57	190	141	Spencer .	3-21
43	92	W. Stockb'dge, .	3-56	135	142	W. Boylston .	3-21
128	93	Erving .	3-54	119	143	Ashland .	3-20
142	94	Fitchburg .	3-54	183	144	Norwood .	3-20
129	95	Canton .	3-53	186	145	Sterling .	3-20
210	96	Ayer .	3-52	134	146	Uxbridge .	3-20
136	97	Quincy .	3-52	50	147	Lakeville .	3-19
100	98	Franklin .	3-51	148	148	Ashburnham .	3-18
86	99	N. Andover .	3-51	149	149	Hanson .	3-18
49	100	Cheshire .	3-50	125	150	Peabody .	3-18
153	101	Ashby .	3-49	182	151	Freetown .	3-17
87	102	Groveland .	3-49	90	152	Hingham .	3-17
147	103	Westminster .	3-48	306	153	Leverett .	3-17
75	104	Hopkinton .	3-46	104	154	Lexington .	3-17
127	105	Buckland .	3-44	107	155	Fairhaven .	3-16
33	106	Charlemont .	3-44	108	156	Leicester .	3-15
70	107	Natick .	3-44	154	157	Westborough .	3-15
157	108	Montgomery .	3-43	177	158	Southborough, .	3-14
91	109	N. Brookfield, .	3-43	160	159	Gardner .	3-13
88	110	Somerville .	3-43	152	160	Southbridge .	3-12
185	111	Ludlow .	3-42	126	161	Methuen .	3-11
211	112	Melrose .	3-42	207	162	Plympton .	3-11
166	113	Webster .	3-42	188	163	Raynham .	3-11
60	114	N. Adams .	3-41	273	164	Boylston .	3-10
95	115	Saugus .	3-41	168	165	Holden .	3-10
14	116	Hudson .	3-40	171	166	Warren .	3-10

## SCHOOL-RETURNS.

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For 1878-79, by the State Valuation of 1879.		TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1878-79, by the State Valuation of 1879.		TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
For 1879-80, by the State Valuation of 1880.							
106	167	Leyden . .	\$#.003-08	235	217	Dana . .	\$#.002-76
130	168	Lynn . .	3-08	201	218	Sutton . .	2-76
253	169	Tolland . .	3-07	131	219	Lawrence . .	2-75
176	170	Westfield . .	3-07	178	220	Northampton, .	2-75
139	171	Wakefield . .	3-06	234	221	Salem . .	2-75
151	172	Reading . .	3-05	241	222	Wilmington . .	2-75
192	173	Winchester . .	3-05	226	223	Gt. Barrington, .	2-74
230	174	Pembroke . .	3-03	213	224	Littleton . .	2-74
180	175	Woburn . .	3-03	231	225	Wilbraham . .	2-74
217	176	Needham . .	3-02	289	226	Dracut . .	2-73
208	177	Sturbridge . .	3-02	221	227	Newton . .	2-73
132	178	Wayland . .	3-02	257	228	Taunton . .	2-73
200	179	Worcester . .	3-02	237	229	Dartmouth . .	2-71
184	180	Worthington . .	3-02	256	230	Northborough, .	2-71
187	181	Charlton . .	3-01	204	231	Lenox . .	2-70
198	182	W. Newbury . .	3-01	260	232	Lowell . .	2-70
174	183	Danvers . .	2-99	150	233	Westport . .	2-69
164	184	Framingham . .	2-99	264	234	Agawam . .	2-67
159	185	W. Bridgew'r, . .	2-99	222	235	Rowley . .	2-66
191	186	Westford . .	2-99	282	236	Holyoke . .	2-65
206	187	Middlefield . .	2-98	223	237	Shirley . .	2-65
209	188	M. Washing't'n, . .	2-98	181	238	Concord . .	2-64
194	189	Townsend . .	2-98	236	239	Somerset . .	2-64
197	190	Athol . .	2-97	193	240	Chester . .	2-63
216	191	Cambridge . .	2-97	267	241	Southampton, .	2-62
218	192	Scituate . .	2-97	233	242	Springfield . .	2-62
113	193	So. Scituate . .	2-97	195	243	Amherst . .	2-61
167	194	Easthampton . .	2-96	123	244	New Braintree, .	2-61
246	195	Yarmouth . .	2-96	266	245	Seekonk . .	2-61
163	196	Sunderland . .	2-95	229	246	Hanover . .	2-60
161	197	Malden . .	2-93	259	247	Dover . .	2-57
205	198	Orange . .	2-93	265	248	Duxbury . .	2-57
175	199	Sheffield . .	2-92	310	249	Carver . .	2-56
114	200	Tisbury . .	2-92	172	250	Boxborough . .	2-55
156	201	Acushnet . .	2-89	202	251	Williamstown, .	2-55
243	202	Montague . .	2-89	228	252	Auburn . .	2-54
118	203	Swansey . .	2-89	276	253	Egremont . .	2-54
144	204	Essex . .	2-88	335	254	Russell . .	2-54
162	205	W. Brookfield, . .	2-88	244	255	Tyringham . .	2-54
290	206	Hinsdale . .	2-87	242	256	Middleton . .	2-52
251	207	Rochester . .	2-87	179	257	Hubbardston . .	2-49
196	208	Chelsea . .	2-85	277	258	Whately . .	2-49
138	209	Oxford . .	2-81	275	259	Braintree . .	2-48
212	210	Easton . .	2-80	272	260	Winchendon . .	2-48
179	211	Andover . .	2-79	215	261	Greenwich . .	2-47
109	212	Conway . .	2-79	271	262	Oakham . .	2-46
220	213	Huntington . .	2-78	249	263	Marshfield . .	2-45
286	214	Marion . .	2-78	268	264	Bolton . .	2-44
189	215	Royalston . .	2-78	214	265	New Bedford . .	2-44
291	216	Savoy . .	2-78	278	266	Norton . .	2-43



BOARD OF EDUCATION.

For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
326	267	Revere . .	\$.002-42	303	307	Groton . .	\$.002-03
240	268	Shrewsbury . .	2-42	252	308	Tewksbury . .	2-03
269	269	Wenham . .	2-40	297	309	Hadley . .	2-02
69	270	Brewster . .	2-39	330	310	Burlington . .	2-01
293	271	Kingston . .	2-39	314	311	Cohasset . .	2-01
248	272	W. Springfield, .	2-39	281	312	Cummington . .	1-99
285	273	Bedford . .	2-37	296	313	Stockbridge . .	1-99
299	274	Williamsburg, .	2-37	308	314	Dalton . .	1-98
232	275	Lancaster . .	2-34	298	315	Newbury . .	1-96
309	276	Sharon . .	2-34	301	316	Sherborn . .	1-96
283	277	Everett . .	2-32	254	317	Lincoln . .	1-93
279	278	Leominster . .	2-31	313	318	Alford . .	1-90
311	279	Belmont . .	2-30	319	319	Gill . .	1-89
255	280	Mendon . .	2-29	329	320	Nantucket . .	1-88
238	281	Rockport . .	2-29	325	321	Holland . .	1-87
304	282	Weston . .	2-28	261	322	Topsfield . .	1-87
288	283	Acton . .	2-26	322	323	Mattapoisett . .	1-85
292	284	Berlin . .	2-22	336	324	Pepperell . .	1-83
225	285	Halifax . .	2-22	302	325	Wales . .	1-83
312	286	Boxford . .	2-18	323	326	Richmond . .	1-82
262	287	Sudbury . .	2-16	324	327	Southwick . .	1-81
227	288	Dunstable . .	2-14	274	328	Carlisle . .	1-75
284	289	Fall River . .	2-14	316	329	Billerica . .	1-74
305	290	Goshen . .	2-13	315	330	Beverly . .	1-70
247	291	Hardwick . .	2-13	318	331	Princeton . .	1-66
300	292	Chilmark . .	2-12	333	332	Brookline . .	1-58
280	293	Stow . .	2-12	338	333	Bernardston . .	1-46
317	294	Maynard . .	2-09	327	334	Hamilton . .	1-43
307	295	Boston . .	2-08	328	335	Hancock . .	1-39
224	296	Lanesborough, .	2-08	334	336	Lynnfield . .	1-33
239	297	Swampscott . .	2-08	337	337	Hatfield . .	1-32
339	298	Edgartown . .	2-07	332	338	Milton . .	1-32
295	299	Medfield . .	2-07	331	339	New Ashford, .	1-28
287	300	Watertown . .	2-07	340	340	Manchester . .	1-17
294	301	Enfield . .	2-06	341	341	Winthrop . .	1-05
263	302	So. Abington, .	2-06	343	342	Nahant . .	0-99
270	303	Harvard . .	2-04	344	343	Gosnold . .	0-73
320	304	Lunenburg . .	2-04	342	344	Hull . .	0-55
245	305	Windsor . .	2-04	-	345	Cottage City . .	-
321	306	Falmouth . .	2-03				

## GRADUATED TABLES—SECOND SERIES.

## [COUNTY TABLES.]

*In which all the Towns in the respective Counties in the State are numerically arranged according to the Percentage of their Taxable Property appropriated for the Support of Public Schools for the year 1879-80.*

## BARNSTABLE COUNTY.

For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mil s.	For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
1	1	TRURO . .	\$ .005-85	9	8	Dennis . .	\$ .004-73
3	2	Orleans . .	5-59	7	9	Mashpee . .	4-67
10	3	Provincetown .	5-48	4	10	Harwich . .	4-59
5	4	Wellfleet . .	5-34	11	11	Barnstable .	3-59
6	5	Sandwich . .	5-29	13	12	Yarmouth . .	2-96
2	6	Eastham . .	4-94	12	13	Brewster . .	2-39
8	7	Chatham . .	4-73	14	14	Falmouth . .	2-03

## BERKSHIRE COUNTY.

12	1	BECKET . .	\$ .004-57	15	17	Sheffield . .	\$ .002-92
2	2	Otis . .	4-27	25	18	Hinsdale . .	2-87
5	3	Peru . .	4-18	26	19	Savoy . .	2-78
3	4	Adams . .	3-97	21	20	Gt. Barringt'n,	2-74
19	5	Washington .	3-94	17	21	Lenox . .	2-70
13	6	Monterey . .	3-84	16	22	Williamstown .	2-55
1	7	Florida . .	3-77	24	23	Egremont . .	2-54
9	8	Lee . .	3-76	22	24	Tyringham . .	2-54
10	9	Clarksburg .	3-58	20	25	Lanesborough .	2-08
4	10	W. Stockb'dge,	3-56	23	26	Windsor . .	2-04
6	11	Cheshire . .	3-50	27	27	Stockbridge . .	1-99
8	12	North Adams .	3-41	28	28	Dalton . .	1-98
7	13	N. Marlboro' .	3-37	29	29	Alford . .	1-90
14	14	Pittsfield . .	3-34	30	30	Richmond . .	1-82
11	15	Sandisfield . .	3-24	31	31	Hancock . .	1-39
18	16	M. Washing't'n,	2-98	32	32	New Ashford .	1-28

## BOARD OF EDUCATION.

## BRISTOL COUNTY.

For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
3	1	REHOBOTH .	\$.004-26	11	11	Easton .	\$.002-80
1	2	Attleborough .	4-10	15	12	Taunton .	2-73
2	3	Mansfield .	4-06	14	13	Dartmouth .	2-71
16	4	Berkley .	3-59	7	14	Westport .	2-69
5	5	Dighton .	3-29	13	15	Somerset .	2-64
9	6	Freetown .	3-17	17	16	Seekonk .	2-61
4	7	Fairhaven .	3-16	12	17	New Bedford .	2-44
10	8	Raynham .	3-11	18	18	Norton .	2-43
8	9	Acushnet .	2-89	19	19	Fall River .	2-14
6	10	Swanzy .	2-89				

## DUKES COUNTY.

1	1	GAY HEAD .	\$.006-31	4	4	Edgartown .	\$.002-07
2	2	Tisbury .	2-92	5	5	Gosnold .	0-73
3	3	Chilmark .	2-12	—	6	Cottage City .	—

## ESSEX COUNTY.

5	1	AMESBURY .	\$.004-71	18	19	Essex .	\$.002-88
2	2	Haverhill .	4-61	19	20	Andover .	2-79
1	3	Gloucester .	4-26	17	21	Lawrence .	2-75
4	4	Georgetown .	4-18	23	22	Salem .	2-75
7	5	Bradford .	3-91	22	23	Rowley .	2-66
6	6	Marblehead .	3-89	26	24	Middleton .	2-52
3	7	Merrimac .	3-76	27	25	Wenham .	2-40
8	8	Salisbury .	3-64	24	26	Rockport .	2-29
9	9	N. Andover .	3-51	29	27	Boxford .	2-18
10	10	Groveland .	3-49	25	28	Swampscott .	2-08
11	11	Saugus .	3-41	28	29	Newbury .	1-96
13	12	Newburyport .	3-31	31	30	Topsfield .	1-87
12	13	Ipswich .	3-28	30	31	Beverly .	1-70
14	14	Peabody .	3-18	32	32	Hamilton .	1-43
15	15	Methuen .	3-11	33	33	Lynnfield .	1-33
16	16	Lynn .	3-08	34	34	Manchester .	1-17
21	17	W. Newbury .	3-01	35	35	Nahant .	0-99
20	18	Danvers .	2-99				

## SCHOOL-RETURNS.

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## FRANKLIN COUNTY.

For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	TOWNS.	Percentage of Valuation appropriated to Public Schools — equivalent to mills and hundredths of mills.	For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	TOWNS.	Percentage of Valuation appropriated to Public Schools — equivalent to mills and hundredths of mills.
1	1	HAWLEY .	\$ .006-74	4	14	Charlemont .	\$ .003-44
3	2	Monroe .	5-04	11	15	Northfield .	3-36
5	3	Wendell .	4-38	20	16	Colrain .	3-35
8	4	Shutesbury .	4-19	14	17	Greenfield .	3-22
13	5	Rowe .	4-08	24	18	Leverett .	3-17
2	6	Heath .	3-96	15	19	Leyden .	3-08
9	7	Warwick .	3-94	19	20	Sunderland .	2-95
12	8	Shelburne .	3-93	21	21	Orange .	2-93
6	9	Deerfield .	3-88	22	22	Montagne .	2-89
7	10	Ashfield .	3-67	16	23	Conway .	2-79
10	11	New Salem .	3-57	23	24	Whately .	2-49
18	12	Erving .	3-54	25	25	Gill .	1-89
17	13	Buckland .	3-44	26	26	Bernardston .	1-46

## HAMPDEN COUNTY.

5	1	CHICOPEE .	\$ .004-39	9	12	Westfield .	\$ .003-07
1	2	Granville .	4-33	13	13	Wilbraham .	2-74
3	3	Blandford .	3-78	17	14	Agawam .	2-67
2	4	Monson .	3-78	18	15	Holyoke .	2-65
4	5	Palmer .	3-60	11	16	Chester .	2-63
8	6	Montgomery .	3-43	14	17	Springfield .	2-62
10	7	Ludlow .	3-42	22	18	Russell .	2-54
6	8	Brimfield .	3-25	15	19	W. Springfield,	2-39
12	9	Hampden .	3-24	21	20	Holland .	1-87
7	10	Longmeadow,	3-22	19	21	Wales .	1-83
16	11	Tolland .	3-07	20	22	Southwick .	1-81

## HAMPSHIRE COUNTY.

1	1	SOUTH HADLEY .	\$ .004-64	15	13	Huntington .	\$ .002-78
3	2	Plainfield .	4-25	10	14	Northampton,	2-75
2	3	Pelham .	4-09	17	15	Southampton,	2-62
6	4	Granby .	4-00	12	16	Amherst .	2-61
9	5	Chesterfield .	3-90	14	17	Greenwich .	2-47
4	6	Belchertown .	3-89	21	18	Williamsburg,	2-37
5	7	Ware .	3-63	22	19	Goshen .	2-13
7	8	Westhampton,	3-34	19	20	Enfield .	2-06
16	9	Prescott .	3-25	20	21	Hadley .	2-02
11	10	Worthington .	3-02	18	22	Cummington .	1-99
13	11	Middlefield .	2-98	23	23	Hatfield .	1-32
8	12	Easthampton .	2-96				

## MIDDLESEX COUNTY.

For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	TOWNS.	Percentage of Valuation appropriated to Public Schools — equivalent to mills and hundredths of mills.	For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	TOWNS.	Percentage of Valuation appropriated to Public Schools — equivalent to mills and hundredths of mills.
2	1	MARLBOROUGH .	\$ 004-21	19	28	Malden .	\$ .002-93
3	2	Stoneham .	3-89	35	29	Wilmington .	2-75
8	3	Arlington .	3-75	30	30	Littleton .	2-74
9	4	Tyngsborough,	3-63	46	31	Dracut .	2-73
14	5	Waltham .	3-60	32	32	Newton .	2-73
28	6	Ayer .	3-52	38	33	Lowell .	2-70
17	7	Ashby .	3-49	33	34	Shirley .	2-65
6	8	Hopkinton .	3-46	24	35	Concord .	2-64
5	9	Natick .	3-44	22	36	Boxborough .	2-55
7	10	Somerville .	3-43	43	37	Bedford .	2-37
29	11	Melrose .	3-42	42	38	Everett .	2-32
1	12	Hudson .	3-40	50	39	Belmont .	2-30
18	13	Holliston .	3-29	49	40	Weston .	2-28
21	14	Chelmsford .	3-23	45	41	Acton .	2-26
15	15	Medford .	3-22	39	42	Sudbury .	2-16
4	16	No. Reading .	3-22	34	43	Dunstable .	2-14
11	17	Ashland .	3-20	41	44	Stow .	2-12
10	18	Lexington .	3-17	52	45	Maynard .	2-09
13	19	Wakefield .	3-06	44	46	Watertown .	2-07
16	20	Reading .	3-05	48	47	Groton .	2-03
26	21	Winchester .	3-05	36	48	Tewksbury .	2-03
23	22	Woburn .	3-03	53	49	Burlington .	2-01
12	23	Wayland .	3-02	47	50	Sherborn .	1-96
20	24	Framingham .	2-99	37	51	Lincoln .	1-93
25	25	Westford .	2-99	54	52	Pepperell .	1-83
27	26	Townsend .	2-98	40	53	Carlisle .	1-75
31	27	Cambridge .	2-97	51	54	Billerica .	1-74

## NANTUCKET COUNTY.

	NANTUCKET . . . . .	\$ .001-88
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## NORFOLK COUNTY.

6	1	STOUGHTON .	\$ .005-25	13	10	Foxborough .	\$ .003-81
1	2	Holbrook .	4-54	11	11	Walpole .	3-74
4	3	Weymouth .	4-50	14	12	Canton .	3-53
3	4	Wrentham .	4-32	15	13	Quincy .	3-52
8	5	Hyde Park .	4-31	12	14	Franklin .	3-51
5	6	Randolph .	4-10	10	15	Dedham .	3-30
7	7	Bellingham .	4-08	16	16	Norwood .	3-20
2	8	Medway .	4-06	17	17	Needham .	3-02
9	9	Norfolk .	3-98	18	18	Dover .	2-57

## SCHOOL-RETURNS.

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## NORFOLK COUNTY—CONCLUDED.

For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	TOWNS.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.
19	19	Braintree .	\$.002-48	22	22	Cohasset .	\$.002-01
21	20	Sharon .	2-34	23	23	Brookline .	1-58
20	21	Medfield .	2-07	24	24	Milton .	1-32

## PLYMOUTH COUNTY.

1	1	WAREHAM .	\$.004-65	15	15	Scituate .	\$.002-97
7	2	Abington .	4-57	10	16	S. Scituate .	2-97
6	3	E. Bridgew'r,	4-02	20	17	Rochester .	2-87
3	4	Brockton .	4-01	23	18	Marion .	2-78
2	5	Bridgewater .	3-78	17	19	Hanover .	2-60
5	6	Plymouth .	3-78	22	20	Duxbury .	2-57
9	7	Rockland .	3-71	25	21	Carver .	2-56
11	8	Middleboro' .	3-25	19	22	Marshfield .	2-45
4	9	Lakeville .	3-19	24	23	Kingston .	2-39
12	10	Hanson .	3-18	16	24	Halifax .	2-22
8	11	Hingham .	3-17	21	25	S. Abington .	2-06
14	12	Plympton .	3-11	26	26	Mattapoisett .	1-85
18	13	Pembroke .	3-03	27	27	Hull .	0-55
13	14	W. Bridgew'r,	2-99				

## SUFFOLK COUNTY.

1	1	CHELSEA .	\$.002-85	2	3	Boston .	\$.002-08
3	2	Revere .	2-42	4	4	Winthrop .	1-05

## WORCESTER COUNTY.

2	1	DUDLEY .	\$.004-74	11	11	Rutland .	\$.003-65
1	2	Upton .	4-67	15	12	Paxton .	3-60
21	3	Clinton .	4-64	22	13	Fitchburg .	3-54
9	4	Douglas .	4-53	24	14	Westminster .	3-48
6	5	Milford .	4-40	10	15	N. Brookfield,	3-43
4	6	Templeton .	4-25	30	16	Webster .	3-42
5	7	Northbridge .	4-14	14	17	Millbury .	3-39
19	8	Blackstone .	3-86	7	18	Barre .	3-26
3	9	Grafton .	3-70	23	19	Petersham .	3-24
8	10	Brookfield .	3-68	12	20	Phillipston .	3-22



## BOARD OF EDUCATION.

## WORCESTER COUNTY—CONCLUDED.

For 1878-79, by the State Valuation of 1879.			Percentage of Val- ation appropriated to Public Schools— equivalent to mills and hundredths of mills	For 1878-79, by the State Valuation of 1879.			Percentage of Val- ation appropriated to Public Schools— equivalent to mills and hundredths of mills.
For 1879-80, by the State Valuation of 1880.		TOWNS.		For 1879-80, by the State Valuation of 1880.		TOWNS.	
38	21	Spencer .	\$ .003-21	37	40	Royalston .	¢ 002-78
18	22	West Boylston,	3-21	45	41	Dana . .	2-76
35	23	Sterling .	3-20	41	42	Sutton . .	2-76
17	24	Uxbridge .	3-20	49	43	Northborough,	2-71
25	25	Ashburnham .	3-18	16	44	New Braintree,	2-61
13	26	Leicester .	3-15	43	45	Auburn . .	2-54
27	27	Westborough .	3-15	34	46	Hubbardston .	2-49
33	28	Southborough,	3-14	53	47	Winchendon .	2-48
28	29	Gardner .	3-13	52	48	Oakham . .	2-46
26	30	Southbridge .	3-12	50	49	Bolton . .	2-44
54	31	Boylston .	3-10	46	50	Shrewsbury .	2-42
31	32	Holden . .	3-10	44	51	Laicester . .	2-34
32	33	Warren . .	3-10	55	52	Leominster .	2-31
42	34	Sturbridge .	3-02	48	53	Mendon . .	2-29
40	35	Worcester .	3-02	56	54	Berlin . .	2-22
36	36	Charlton .	3-01	47	55	Hardwick . .	2-13
39	37	Athol . .	2-97	51	56	Harvard . .	2-04
29	38	W. Brookfield,	2-88	58	57	Lunenburg .	2-04
20	39	Oxford . .	2-81	57	58	Princeton .	1-66

## GRADUATED TABLES — SECOND SERIES.

*Showing the different Counties in the State, numerically arranged, according to the Percentage of their Taxable Property appropriated for the Support of Public Schools for the year 1879-80.*

For 1878-79, by the State Valuation of 1879.	For 1879-80, by the State Valuation of 1880.	COUNTIES.	Percentage of Valuation appropriated to Public Schools—equivalent to mills and hundredths of mills.	Amount of money raised by taxes for the support of Public Schools.	Income of surplus Revenue and of similar funds appropriated for Public Schools.	TOTAL.	Valuation of 1880.	Amount contributed for board and fuel.
1	1	BAENSTABLE	\$.003-97	\$56,980 00	\$914 15	\$57,894 15	\$14,535,983 00	\$149 00
8	2	Middlesex	3-29	845,041 21	4,610 22	849,651 43	258,392,568 00	265 75
2	3	Plymouth	3-28	128,137 78	2,208 04	130,345 82	39,659,107 00	—
3	4	Franklin	3-24	48,900 00	1,062 63	49,962 63	15,428,323 00	698 00
5	5	Berkshire	3-03	100,299 53	1,832 02	102,131 55	33,371,748 00	790 60
4	6	Essex	2-98	459,365 49	4,271 47	463,636 96	155,241,900 00	2,111 00
7	7	Hampshire	2-91	68,544 45	1,558 60	70,103 05	24,078,980 00	1,805 00
9	8	Hampden	2-87	187,435 42	2,927 06	190,362 48	66,301,731 00	777 00
10	9	Norfolk	2-82	239,978 58	4,256 31	244,234 89	86,465,534 00	5 00
6	10	Worcester	2-79	349,995 88	6,942 11	356,938 02	127,690,969 00	427 73
11	11	Bristol	2-52	248,544 37	3,859 24	252,403 61	100,029,138 00	71 00
13	12	Suffolk	2-10	1,320,210 53	62,278 09	1,382,488 62	658,220,621 00	—
12	13	Nantucket	1-88	3,964 50	—	3,964 50	2,103,926 00	—
14	14	Dukes	1-66	5,165 00	130 34	5,295 34	3,186,214 00	—

## AGGREGATE FOR THE STATE.

14 Counties	\$.002-62	\$4,062,562 74	\$96,850 31	\$4,159,413 05	\$1,584,756,802 00	\$7,100 08
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## GRADUATED TABLES — SECOND SERIES.

*Showing the Arrangement of Counties according to their Appropriations, including Voluntary Contributions.*

If the counties are numerically arranged, according to the percentage of their valuations appropriated for public schools, voluntary contributions of board and fuel being added to the sum raised by tax and to the income of the surplus revenue and other funds, as severally given in the previous table, the order of precedence will be as follows:—

For 1878-79, by the State Val- uation of 1879,	For 1879-80, by the State Val- uation of 1880.	COUNTIES.	Percentage of Valuation appropriated to Public Schools— equivalent to mills and hundredths of mills.
1	1	BARNSTABLE . . . . .	\$.003-98
8	2	Middlesex . . . . .	3-29
3	3	Franklin . . . . .	3-28
2	4	Plymouth . . . . .	3-28
5	5	Berkshire . . . . .	3-08
4	6	Essex . . . . .	3-00
6	7	Hampshire . . . . .	2-98
9	8	Hampden . . . . .	2-88
10	9	Norfolk . . . . .	2-82
7	10	Worcester . . . . .	2-79
11	11	Bristol . . . . .	2-52
13	12	Suffolk . . . . .	2-10
12	13	Nantucket . . . . .	1-88
14	14	Dukes . . . . .	1-66
Aggregate for the State . . . . .			\$.002-63

## GRADUATED TABLES — THIRD SERIES.

The following table exhibits the ratio of the average attendance for the year in each town to the whole number of children between five and fifteen, according to the returns.

The ratio is expressed in decimals, continued to four figures, the first two of which are separated from the last two by a point, as only the two former are essential to denote the real per cent. Yet the ratios of many towns are so nearly equal, or the difference is so small a fraction, that the first two decimals, with the appropriate mathematical sign appended, indicate no distinction. The continuation of the decimals, therefore, is simply to indicate a priority in cases where, without such continuation, the ratios would appear to be precisely similar.

In several cases the ratio of attendance exhibited in the table is over 100 per cent. These results, supposing the registers to have been properly kept and the returns correctly made, are to be thus explained: The average attendance upon all public schools being compared with the whole number of children in the town between five and fifteen, the result may be over 100 per cent, because the attendance of children under five and over fifteen may more than compensate for the absence of children between those ages. The rank of the towns standing highest in the following table is in accordance with the returns. As the returns are often incorrect, the rank may be too high in some cases.

## GRADUATED TABLES — THIRD SERIES.

[FOR THE STATE.]

*In which all the Towns in the State are numerically arranged according to the AVERAGE ATTENDANCE of their Children upon the Public Schools, for the year 1879-80.*

TOWNS.				TOWNS.					
No. of children between 5 and 15 years of age in each town.				No. of children between 5 and 15 years of age in each town.					
Average attendance upon School.				Average attendance upon School.					
Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.				Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.					
1	ASHBY . . .	174	226	1.29-88	33	Edgartown . .	262	240	91-60
2	Mashpee . .	45	52	1.15-55	34	Agawam . . .	309	283	91-59
3	Shrewsbury .	230	242	1.05-22	35	Abington . . .	615	562	91-38
4	E. Bridgewater,	385	405	1.05-19	36	Carlisle . . .	58	53	91-38
5	Dunstable . .	67	70	1.04-47	37	Dana . . . . .	115	105	91-30
6	Holland . . .	65	67	1.03-07	38	Athol . . . . .	645	587	91-01
7	Heath . . . .	95	97	1.02-11	39	Yarmouth . . .	309	281	90-94
8	Littleton . .	159	162	1.01-88	40	Wenham . . . .	152	138	90-80
9	Truro . . . .	162	165	1.01-85	41	Boxborough, . .	54	49	90-74
10	Ashfield . . .	178	179	1.00-56	42	Waltham . . . .	1,808	1,639	90-65
11	Chilmark . .	61	61	1.00-00	43	Sunderland . . .	159	144	90-56
12	Townsend . .	359	354	.98-61	44	Ayer . . . . .	369	334	90-51
13	Reading . . .	487	473	.97-13	45	Northfield . . .	265	239	90-19
14	Brookfield . .	467	453	.97-00	46	Shutesbury . . .	101	91	90-10
15	Royalston . .	201	194	.96-52	47	Ashland . . . .	381	343	90-03
16	N. Braintree,	94	90	.95-75	48	Holbrook . . . .	403	362	89-82
17	Barnstable . .	684	647	.94-59	49	Savoy . . . . .	124	111	89-52
18	Tyngsboro' .	105	99	.94-29	50	Mendon . . . .	229	204	89-08
19	Orange . . . .	453	427	.94-26	51	Erving . . . . .	151	134	88-74
10	Hubbardst'n.	235	221	.94-04	52	Conway . . . . .	266	236	88-72
21	Leominster . .	835	785	.94-01	53	Petersham . . .	168	149	88-70
22	Florida . . . .	114	107	.93-86	54	Greenfield . . .	667	591	88-61
23	Sandwich . . .	596	557	.93-45	55	Leverett . . . .	114	101	88-60
24	Provincet'n .	902	842	.93-35	56	Nahant . . . . .	105	93	88-57
25	Hopkinton . .	925	862	.93-19	57	Gill . . . . .	122	108	88-52
26	Prescott . . .	88	82	.93-18	58	Tisbury . . . . .	200	177	88-50
27	Winchester . .	584	544	.93-15	59	Monterey . . . .	121	107	88-43
28	Sudbury . . .	192	178	.92-71	60	So. Hadley . . .	627	554	88-36
29	Upton . . . .	318	294	.92-45	61	Princeton . . . .	162	143	88-27
30	Gay Head . . .	26	24	.92-31	62	Holliston . . . .	605	534	88-26
31	Manchester . .	236	217	.91-95	63	Berlin . . . . .	176	155	88-07
32	Shelburne . .	257	236	.91-83	64	Medway . . . . .	771	679	88-07

## SCHOOL-RETURNS.

CXXV

TOWNS.					TOWNS.				
		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.			No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
65	Westminst'r,	268	236	·88-06	113	Framingham,	990	824	·83-22
66	Lee . . .	786	692	·88-01	114	Acton . . .	303	252	·83-18
67	Duxbury .	350	308	·88-00	115	Belmont . .	420	349	·83-10
68	Bellingham.	212	186	·87-74	116	Stoneham . .	872	724	·83-03
69	Warwick .	129	113	·87-60	117	Plymouth . .	1,138	943	·82-86
70	Ipswich . .	555	485	·87-39	118	Leicester . .	559	463	·82-83
71	Ilawley . .	126	110	·87-30	119	Groton . . .	325	269	·82-77
72	Randolph .	722	630	·87-26	120	S. Abington,	503	416	·82-70
73	Wrentham .	419	364	·86-87	121	Greenwich . .	104	86	·82-69
74	Amesbury .	604	524	·86-75	122	Melrose . . .	840	692	·82-38
75	Somerville .	4,500	3,902	·86-71	123	Harwich . . .	669	550	·82-21
76	Templeton .	468	405	·86-54	124	Harvard . . .	230	189	·82-17
77	Uxbridge . .	481	416	·86-49	125	Fairhaven . .	442	363	·82-13
78	Longmead'w,	262	226	·86-26	126	Hingham . . .	705	579	·82-13
79	Quincy . . .	1,704	1,467	·86-09	127	Saugus . . . .	462	379	·82-04
80	Falmouth . .	351	302	·86-04	128	Dracut . . . .	239	196	·82-01
81	Oakham . . .	135	116	·85-92	129	Revere . . . .	378	310	·82-01
82	Cummington,	156	134	·85-90	130	Barre . . . .	361	296	·81-99
83	Stow . . . .	191	164	·85-86	131	Fitchburg . .	2,239	1,834	·81-91
84	Merrimac . .	367	315	·85-83	132	Natick . . . .	1,597	1,307	·81-84
85	Rehoboth . .	300	257	·85-67	133	New Bedford,	4,208	3,438	·81-70
86	Malden . . .	2,153	1,844	·85-65	134	Winchendon,	621	507	·81-64
87	Rockland . .	960	821	·85-52	135	Lunenburg . .	152	124	·81-58
88	Bernardston,	165	141	·85-45	136	Dedham . . .	1,115	909	·81-52
89	Weymouth . .	2,075	1,770	·85-30	137	Lexington . .	420	342	·81-43
90	Lanesboro' .	230	196	·85-22	138	Worthington,	134	109	·81-34
91	Chesterfield.	135	115	·85-19	139	Chelsea . . . .	3,461	2,815	·81-33
92	Lancaster . .	270	230	·85-19	140	Enfield . . . .	187	152	·81-28
93	Brockton . .	2,107	1,795	·85-14	141	G. Barr'gton,	815	661	·81-10
94	Danvers . . .	1,080	918	·85-00	142	Everett . . . .	734	595	·81-06
95	Grafton . . .	807	685	·84-88	143	Kingston . . .	247	200	·80-97
96	Stoughton . .	985	836	·84-87	144	Dighton . . .	299	242	·80-94
97	Rowe . . . .	96	81	·84-38	145	N. Reading . .	156	126	·80-77
98	Dartmouth . .	529	446	·84-31	146	Salisbury . . .	684	552	·80-70
99	Millbury . . .	828	698	·84-30	147	Hudson . . . .	774	624	·80-62
100	Montgomery,	57	48	·84-21	148	Bradford . . .	371	299	·80-60
101	Wakefield . .	866	729	·84-18	149	Milford . . . .	2,082	1,678	·80-60
102	Wareham . . .	550	463	·84-18	150	N. Marlboro',	407	328	·80-59
103	Peru . . . .	88	74	·84-09	151	Lynn . . . . .	5,792	4,667	·80-58
104	Newton . . .	3,028	2,541	·83-92	152	Wellfleet . . .	365	294	·80-55
105	Granby . . . .	142	119	·83-80	153	Georgetown,	415	334	·80-48
106	Otis . . . . .	185	155	·83-78	154	Medford . . .	1,279	1,029	·80-45
107	Milton . . . .	497	416	·83-70	155	Arlington . . .	812	653	·80-42
108	Weston . . . .	220	184	·83-64	156	Colrain . . . .	301	242	·80-40
109	Sterling . . .	243	203	·83-54	157	Concord . . . .	535	430	·80-37
110	Watertown . .	872	728	·83-49	158	Foxborough,	466	374	·80-26
111	Huntington . .	192	160	·83-33	159	N. Brookfield,	810	650	·80-25
112	Ashburnham,	365	304	·83-29	160	Brewster . . .	212	170	·80-19



TOWNS.				TOWNS.			
		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.			No. of children between 5 and 15 years of age in each town.	Average attendance upon School.
		Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.				Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.	
161	Cheshire .	308	247	80-19	209	Attleboro' .	1,679
162	Hyde Park .	1,383	1,108	80-12	210	Bridgewater,	687
163	Methuen .	630	504	80-00	211	Pittsfield .	2,353
164	Swampscott,	390	312	80-00	212	Blackstone .	959
165	Amherst .	734	586	79-84	213	Wilbraham .	264
166	Williamst'n,	637	508	79-75	214	Chelmsford .	450
167	Lincoln .	148	118	79-73	215	Paxton .	127
168	Beverly .	1,388	1,104	79-55	216	N. Andover,	548
169	Cohasset .	419	333	79-47	217	Stockbridge,	352
170	Shirley .	204	162	79-41	218	Somerset .	392
171	Marion .	150	119	79-33	219	Haverhill .	2,748
172	Marblehead .	1,458	1,156	79-29	220	Springfield .	5,524
173	Bolton .	182	144	79-18	221	Marshfield .	265
174	Mattapoisett,	192	152	79-17	222	Swansey .	223
175	Westfield .	1,430	1,140	79-12	223	Walpole .	371
176	Rockport .	784	620	79-08	224	Middlefield .	148
177	Chatham .	430	340	79-07	225	Wales .	184
178	Norwood .	420	332	79-05	226	Hamilton .	106
179	Dennis .	590	466	78-98	227	Charlton .	340
180	Mansfield .	490	387	78-98	228	Seekonk .	230
181	Northampt'n,	2,026	1,600	78-97	229	Charlemont,	129
182	Gardner .	758	597	78-76	230	Eastham .	145
183	Medfield .	207	163	78-74	231	Montague .	826
184	Southbridge,	1,068	840	78-65	232	Douglas .	416
185	Westboro' .	772	607	78-62	233	Williamsb'g,	411
186	Hull .	56	44	78-57	234	Boston .	60,766
187	Monroe .	56	44	78-57	235	Dalton .	354
188	Franklin .	637	500	78-49	236	Andover .	826
189	Hadley .	427	335	78-45	237	Essex .	314
190	Plainfield .	60	47	78-33	238	Boylston .	170
191	Halifax .	83	65	78-31	239	Norfolk .	162
192	Orleans .	212	166	78-30	240	Clinton .	1,579
193	Northbridge,	771	603	78-21	241	Plympton .	122
194	Bedford .	151	118	78-14	242	Sherborn .	156
195	Taunton .	3,246	2,535	78-09	243	Tewksbury .	187
196	W. Springf'd,	739	577	78-08	244	Hanover .	325
197	Sharon .	237	185	78-06	245	Gloicester .	4,050
198	Hardwick .	387	302	78-03	246	Woburn .	2,424
199	Marlboro' .	2,066	1,611	77-98	247	Blandford .	225
200	Westford .	290	226	77-93	248	Peabody .	1,730
201	Hinsdale .	346	269	77-75	249	Middleton .	179
202	Rutland .	220	171	77-73	250	Buckland .	350
203	Belchertown,	480	373	77-71	251	Dudley .	573
204	Braintree .	735	571	77-69	252	Canton .	942
205	Lenox .	416	322	77-40	253	Worcester .	9,827
206	Easton .	831	643	77-38	254	Phillipston .	125
207	Deerfield .	568	439	77-29	255	Wayland .	389
208	Needham .	902	694	76-94	256	Lowell .	8,393
							6,102
							76-71
							527
							1,805
							734
							202
							344
							97
							418
							268
							298
							2,087
							4,192
							201
							169
							281
							112
							139
							80
							256
							173
							97
							109
							620
							312
							308
							45196
							265
							618
							334
							127
							121
							1,179
							91
							116
							139
							241
							3,008
							1,790
							166
							1,276
							132
							258
							422
							688
							7,170
							91
							283
							72-70

	TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, ex- pressed in decimals.		TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, ex- pressed in decimals.
257	W. Brookf'd,	355	258	72-68	302	Goshen .	68	46	67-65
258	Middleboro'.	885	642	72-54	303	Becket .	269	181	67-29
259	Brimfield .	221	160	72-40	304	Alford .	64	43	67-19
260	Freetown .	224	162	72-32	305	Windsor .	121	81	66-94
261	S. Scituate .	320	231	72-19	306	Raynham .	314	210	66-88
262	Acushnet .	204	147	72-06	307	No. Adams .	2,160	1,443	66-81
263	Mt. Wash'n .	32	23	71-87	308	Webster .	982	656	66-80
264	Westport .	519	373	71-87	309	Groveland .	412	275	66-75
265	Cambridge .	8,885	6,385	71-86	310	Warren .	784	523	66-71
266	Hatfield .	323	232	71-83	311	Berkley .	152	101	66-45
267	Brookline .	1,352	971	71-82	312	Pepperell .	330	219	66-36
268	Sandisfield .	223	160	71-75	313	Nantucket .	571	378	66-20
269	Palmer .	979	702	71-71	314	Russell .	124	82	66-13
270	New Salem .	141	101	71-63	315	Rochester .	197	130	65-99
271	Billerica .	334	239	71-56	316	Topsfield .	176	116	65-91
272	Burlington .	116	83	71-55	317	Ware .	874	576	65-90
273	Dover .	105	75	71-43	318	Norton .	280	184	65-71
274	Newbury .	273	195	71-43	319	Pelham .	129	84	65-12
275	Northboro' .	210	150	71-43	320	Hampden .	183	119	65-03
276	Winthrop .	126	90	71-43	321	Sheffield .	445	287	64-49
277	Oxford .	474	338	71-31	322	W. Newbury	356	228	64-04
278	Leyden .	100	71	71-00	323	W. Bridgew'r,	329	208	63-22
279	W. Boylston,	566	401	70-85	324	Lawrence .	6,836	4,232	61-91
280	Maynard .	476	337	70-80	325	Hanson .	230	142	61-74
281	Easthampton,	847	598	70-60	326	Tolland .	78	48	61-54
282	Holden .	476	336	70-60	327	Ludlow .	317	194	61-20
283	Southboro' .	357	252	70-60	328	Egremont .	154	93	60-39
284	Scituate .	521	363	69-67	329	Salem .	4,673	2,807	60-07
285	Auburn .	243	169	69-55	330	Gosnold .	25	15	60-00
286	Boxford .	128	89	69-53	331	Hancock .	120	72	60-00
287	Chester .	282	196	69-50	332	Lakeville .	210	126	60-00
288	Whately .	211	146	69-19	333	Fall River .	9,585	5,650	58-95
289	Monson .	584	403	69-01	334	Rowley .	255	150	58-82
290	W. Stockb'ge	454	313	68-94	335	Washington,	131	77	58-78
291	Pembroke .	254	175	68-90	336	Newburyp't,	2,450	1,406	57-39
292	Carver .	217	149	68-66	337	Richmond .	208	112	53-85
293	Lynnfield .	118	81	68-65	338	Tyringham .	122	63	51-64
294	Westhampt'n	140	96	68-57	339	New Ashford	31	16	51-61
295	Wilmington,	175	120	68-57	340	Chicopee .	2,104	1,041	49-48
296	Adams .	1,146	785	68-51	341	Sturbridge .	546	270	49-45
297	Granville .	266	182	68-42	342	Holyoke .	3,587	1,687	47-03
298	Southwick .	212	145	68-39	343	Sutton .	716	334	46-64
299	Southampton	200	136	68-00	344	Clarksburg .	184	85	46-20
300	Spencer .	1,470	996	67-76	345	Cottage City,	-	-	-
301	Wendell .	93	63	67-74					

## GRADUATED TABLES — THIRD SERIES.

## [COUNTY TABLES.]

*In which all the Towns in the respective Counties in the State are numerically arranged according to the AVERAGE ATTENDANCE of their Children upon the Public Schools for the year 1879-80.*

[For an explanation of the principles on which these Tables are constructed, see *ante*, p. ev.]

## BARNSTABLE COUNTY.

	TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	MASHPEE .	45	52	1.15-55	8	Harwich .	669	550	.82-21
2	Truro .	162	165	1.01-85	9	Wellfleet .	365	294	.80-55
3	Barnstable .	684	647	.94-59	10	Brewster .	212	170	.80-19
4	Sandwich .	596	557	.93-45	11	Chatham .	430	340	.79-07
5	Provincetown	902	842	.93-35	12	Dennis .	590	466	.78-98
6	Yarmouth .	309	281	.90-94	13	Orleans .	212	166	.78-30
7	Falmouth .	351	302	.86-04	14	Eastham .	145	109	.75-17

## BERKSHIRE COUNTY.

1	FLORIDA .	114	107	.93-86	17	Mt. Wash'ton	32	23	.71-87
2	Savoy .	124	111	.89-52	18	Sandisfield .	223	160	.71-75
3	Monterey .	121	107	.88-43	19	W. Stockb'ge	454	313	.68-94
4	Lee .	786	692	.88-04	20	Adams .	1,146	785	.68-51
5	Lanesboro' .	230	196	.85-22	21	Becket .	269	181	.67-29
6	Peru .	88	74	.84-09	22	Alford .	64	43	.67-19
7	Otis .	185	155	.83-78	23	Windsor .	121	81	.66-94
8	Gt. Bar'gton,	815	661	.81-10	24	No. Adams,	2,160	1,443	.66-81
9	N. Marlboro',	407	328	.80-59	25	Sheffield .	445	287	.64-49
10	Cheshire .	308	247	.80-19	26	Egremont .	154	93	.60-39
11	Williamst'n,	637	508	.79-75	27	Hancock .	120	72	.60-00
12	Hinsdale .	346	269	.77-75	28	Washington,	131	77	.58-78
13	Lenox .	416	322	.77-40	29	Richmond .	208	112	.53-85
14	Pittsfield .	2,353	1,805	.76-71	30	Tyringham .	122	63	.51-64
15	Stockbridge,	352	268	.76-14	31	New Ashford	31	16	.51-61
16	Dalton .	354	265	.74-86	32	Clarksburg .	184	85	.46-20

# SCHOOL-RETURNS.

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## BRISTOL COUNTY.

TOWNS.				TOWNS.			
		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.			No. of children between 5 and 15 years of age in each town.	Average attendance upon School.
1	REHOBOTH .	300	257	85-67	11	Swanzy .	223
2	Dartmouth .	529	446	84-31	12	Seekonk .	230
3	Fairhaven .	442	363	82-13	13	Freetown .	224
4	New Bedford,	4,208	3,438	81-70	14	Acushnet .	204
5	Dighton .	299	242	80-94	15	Westport .	519
6	Mansfield .	490	387	78-98	16	Raynham .	314
7	Taunton .	3,246	2,535	78-09	17	Berkley .	152
8	Easton .	831	643	77-38	18	Norton .	280
9	Attleboro' .	1,679	1,288	76-71	19	Fall River .	9,585
10	Somerset .	392	298	76-02			5,650

## DUKES COUNTY.

1	CHILMARK .	61	61	100-00	4	Tisbury .	200
2	Gay Head .	26	24	92-31	5	Gosnold .	25
3	Edgartown .	262	240	91-60	6	Cottage City,	-
							-

## ESSEX COUNTY.

1	MANCHESTER .	236	217	91-95	19	Haverhill .	2,748
2	Wenham .	152	138	90-80	20	Hamilton .	106
3	Nahant .	105	93	88-57	21	Andover .	826
4	Ipswich .	555	485	87-39	22	Essex .	314
5	Amesbury .	604	524	86-75	23	Gloucester .	4,050
6	Merrimac .	367	315	85-83	24	Peabody .	1,730
7	Danvers .	1,080	918	85-00	25	Middleton .	179
8	Saugus .	462	379	82-04	26	Newbury .	273
9	Salisbury .	684	552	80-70	27	Boxford .	128
10	Bradford .	371	299	80-60	28	Lynnfield .	118
11	Lynn .	5,792	4,667	80-58	29	Groveland .	412
12	Georgetown .	415	334	80-48	30	Topsfield .	176
13	Methuen .	630	504	80-00	31	W. Newbury,	356
14	Swampscott .	390	312	80-00	32	Lawrence .	6,836
15	Beverly .	1,388	1,104	79-55	33	Salem .	4,673
16	Marblehead .	1,458	1,156	79-29	34	Rowley .	255
17	Rockport .	784	620	79-08	35	Newburyport,	2,450
18	N. Andover .	518	418	76-28			1,406

## BOARD OF EDUCATION.

## FRANKLIN COUNTY.

	TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	HEATH .	95	97	1.02-11	14	Hawley .	126	110	.87-30
2	Ashfield .	178	179	1.00-56	15	Bernardston,	165	141	.85-45
3	Orange .	453	427	.94-26	16	Rowe .	96	81	.84-38
4	Shelburne .	257	236	.91-83	17	Colrain .	301	242	.80-40
5	Sunderland .	159	144	.90-56	18	Monroe .	56	44	.78-57
6	Northfield .	265	239	.90-19	19	Deerfield .	568	439	.77-29
7	Shutesbury .	101	91	.90-10	20	Charlemont .	129	97	.75-19
8	Erving .	151	134	.88-74	21	Montague .	826	620	.75-06
9	Conway .	266	236	.88-72	22	Buckland .	350	258	.73-71
10	Greenfield .	667	591	.88-61	23	New Salem .	141	101	.71-63
11	Leverett .	114	101	.88-60	24	Leyden .	100	71	.71-00
12	Gill .	122	108	.88-52	25	Whately .	211	146	.69-19
13	Warwick .	129	113	.87-60	26	Wendell .	93	63	.67-74

## HAMPDEN COUNTY.

1	HOLLAND .	65	67	1.03-07	12	Palmer .	979	702	.71-71
2	Agawam .	309	283	.91-59	13	Chester .	282	196	.69-50
3	Longmeadow,	262	226	.86-26	14	Monson .	584	403	.69-01
4	Montgomery,	57	48	.84-21	15	Granville .	266	182	.68-42
5	Westfield .	1,430	1,140	.79-12	16	Southwick .	212	145	.68-39
6	W. Spring'ld,	739	577	.78-08	17	Russell .	124	82	.66-13
7	Wilbraham .	264	202	.76-52	18	Hampden .	183	119	.65-03
8	Springfield .	5,524	4,192	.75-89	19	Tolland .	78	48	.61-54
9	Wales .	184	139	.75-54	20	Ludlow .	317	194	.61-20
10	Blandford .	225	166	.73-78	21	Chicopee .	2,104	1,041	.49-48
11	Brimfield .	221	160	.72-40	22	Holyoke .	3,587	1,687	.47-03

## HAMPSHIRE COUNTY.

1	PRESCOTT .	88	82	.93-18	13	Plainfield .	60	47	.78-33
2	So. Hadley .	627	554	.88-36	14	Belchertown,	480	373	.77-71
3	Cummington	156	134	.85-90	15	Middlefield .	148	112	.75-68
4	Chesterfield .	135	115	.85-19	16	Williamsburg	411	308	.74-94
5	Granby .	142	119	.83-80	17	Hatfield .	323	232	.71-83
6	Huntington .	192	160	.83-33	18	Easthampton,	847	598	.70-60
7	Greenwich .	104	86	.82-69	19	Westhampton	140	96	.68-57
8	Worthington,	134	109	.81-34	20	Southampton,	200	136	.68-00
9	Enfield .	187	152	.81-28	21	Goshen .	68	46	.67-65
10	Amherst .	734	586	.79-84	22	Ware .	874	576	.65-90
11	Northampton,	2,026	1,600	.78-97	23	Pelham .	129	84	.65-12
12	Hadley .	427	335	.78-45					



## SCHOOL-RETURNS.

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## MIDDLESEX COUNTY.

	TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS.	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	ASHBY . .	174	226	1.29-88	28	Melrose . .	840	692	.82-38
2	Dunstable . .	67	70	1.04-47	29	Dracut . .	239	196	.82-01
3	Littleton . .	159	162	1.01-88	30	Natick . .	1,597	1,307	.81-84
4	Townsend . .	359	354	.98-61	31	Lexington . .	420	342	.81-43
5	Reading . .	487	473	.97-13	32	Everett . .	731	595	.81-06
6	Tyngsboro' . .	105	99	.94-29	33	N. Reading . .	156	126	.80-77
7	Hopkinton . .	925	862	.93-19	34	Hudson . .	774	624	.80-62
8	Winchester . .	584	544	.93-15	35	Medford . .	1,279	1,029	.80-45
9	Sudbury . .	192	178	.92-71	36	Arlington . .	812	653	.80-42
10	Carlisle . .	58	53	.91-38	37	Concord . .	535	430	.80-37
11	Boxborough . .	54	49	.90-74	38	Lincoln . .	148	118	.79-73
12	Waltham . .	1,808	1,639	.90-65	39	Shirley . .	204	162	.79-41
13	Ayer . .	369	334	.90-51	40	Bedford . .	151	118	.78-14
14	Ashland . .	381	343	.90-03	41	Marlborough, . .	2,066	1,611	.77-98
15	Holliston . .	605	534	.88-26	42	Westford . .	290	226	.77-93
16	Somerville . .	4,500	3,902	.86-71	43	Chelmsford . .	450	344	.76-44
17	Stow . .	191	164	.85-86	44	Sherborn . .	156	116	.74-36
18	Malden . .	2,153	1,844	.85-65	45	Tewksbury . .	187	139	.74-33
19	Wakefield . .	866	729	.84-18	46	Woburn . .	2,424	1,790	.73-84
20	Newton . .	3,028	2,541	.83-92	47	Wayland . .	389	283	.72-75
21	Weston . .	220	184	.83-64	48	Lowell . .	8,393	6,102	.72-70
22	Watertown . .	872	728	.83-49	49	Cambridge . .	8,885	6,385	.71-86
23	Frammingham . .	990	824	.83-23	50	Billerica . .	334	239	.71-56
24	Acton . .	303	252	.83-18	51	Burlington . .	116	83	.71-55
25	Belmont . .	420	349	.83-10	52	Maynard . .	476	337	.70-80
26	Stoneham . .	872	724	.83-03	53	Wilmington . .	175	120	.68-57
27	Groton . .	325	269	.82-77	54	Pepperell . .	330	219	.66-36

## NANTUCKET COUNTY.

NANTUCKET . . . . .	571	378	.66-20
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## NORFOLK COUNTY.

1	HOLBROOK . .	403	362	.89-82	7	Weymouth . .	2,075	1,770	.85-30
2	Medway . .	771	679	.88-07	8	Stoughton . .	985	836	.84-87
3	Bellingham . .	212	186	.87-74	9	Milton . .	497	416	.83-70
4	Randolph . .	722	630	.87-26	10	Dedham . .	1,115	909	.81-52
5	Wrentham . .	419	364	.86-87	11	Foxboro' . .	466	374	.80-26
6	Quincy . .	1,704	1,467	.86-09	12	Hyde Park . .	1,383	1,108	.80-12



BOARD OF EDUCATION.

NORFOLK COUNTY—CONCLUDED.

TOWNS.				TOWNS.							
	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.				
13	Cohasset .	419	333	79	47	19	Needham .	902	694	76	94
14	Norwood .	420	332	79	05	20	Walpole .	371	281	75	74
15	Medfield .	207	163	78	74	21	Norfolk .	162	121	74	69
16	Franklin .	637	500	78	49	22	Canton .	942	688	73	04
17	Sharon .	237	185	78	06	23	Brookline .	1,352	971	71	82
18	Braintree .	735	571	77	69	24	Dover .	105	75	71	43

## PLYMOUTH COUNTY.

1	E. BRIDGEWATER,	385	405	1-05-19	15	Bridgewater.	687	527	76-71
2	Abington .	615	562	91-38	16	Marshfield .	265	201	75-85
3	Duxbury .	350	308	88-00	17	Plympton .	122	91	74-59
4	Rockland .	960	821	85-52	18	Hanover .	325	241	74-15
5	Brockton .	2,107	1,795	85-14	19	Middleboro' .	885	642	72-54
6	Wareham .	550	463	84-18	20	So. Scituate,	320	231	72-19
7	Plymouth .	1,138	943	82-86	21	Scituate .	521	363	69-67
8	S. Abington,	503	416	82-70	22	Pembroke .	254	175	68-90
9	Hingham .	705	579	82-13	23	Carver .	217	149	68-66
10	Kingston .	247	200	80-97	24	Rochester .	197	130	65-99
11	Marion .	150	119	79-33	25	W. Bridgew'r	329	208	63-22
12	Mattapoisett,	192	152	79-17	26	Hanson .	230	142	61-74
13	Hull .	56	44	78-57	27	Lakeville .	210	126	60-00
14	Halifax .	83	65	78-31					

SUFFOLK COUNTY.

1	REVERE .	378	310	82-01	3	Boston .	60766	45496	74-87
2	Chelsea .	3,461	2,815	81-33	4	Winthrop .	126	90	71-43

WORCESTER COUNTY.

1	SHREWSBURY .	230	242	1-05-22	6	Leominster .	835	785	94-01
2	Brookfield .	467	453	97-00	7	Upton .	318	294	92-45
3	Royalston .	201	194	96-52	8	Dana .	115	105	91-30
4	N. Braintree,	94	90	95-75	9	Athol .	645	587	91-01
5	Hubbardston,	235	221	94-04	10	Mendon .	229	204	89-08

## SCHOOL-RETURNS.

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## WORCESTER COUNTY — CONCLUDED.

TOWNS.				TOWNS.					
	No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		No. of children between 5 and 15 years of age in each town.	Average attendance upon School.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		
11	Petersham .	168	149	88-70	35	Northbridge,	771	603	78-21
12	Princeton .	162	143	88-27	36	Hardwick .	387	302	78-03
13	Berlin .	176	155	88-07	37	Rutland .	220	171	77-73
14	Westminster,	268	236	88-06	38	Blackstone .	959	734	76-54
15	Templeton .	468	405	86-54	39	Paxton .	127	97	76-38
16	Uxbridge .	481	416	86-49	40	Charlton .	340	256	75-30
17	Oakham .	135	116	85-92	41	Douglas .	416	312	75-00
18	Lancaster .	270	230	85-19	42	Boylston .	170	127	74-71
19	Grafton .	807	685	84-88	43	Clinton .	1,579	1,179	74-67
20	Millbury .	828	698	84-30	44	Dudley .	573	422	73-65
21	Sterling .	243	203	83-54	45	Worcester .	9,827	7,170	72-96
22	Ashburnham,	365	304	83-29	46	Phillipston .	125	91	72-80
23	Leicester .	559	463	82-83	47	W. Brookfield	355	258	72-68
24	Harvard .	230	189	82-17	48	Northboro' .	210	150	71-43
25	Barre .	361	296	81-99	49	Oxford .	474	338	71-31
26	Fitchburg .	2,239	1,834	81-91	50	W. Boylston,	566	401	70-85
27	Winchendon,	621	507	81-64	51	Holden .	476	336	70-60
28	Lunenburg .	152	124	81-58	52	Southboro' .	357	252	70-60
29	Milford .	2,082	1,678	80-60	53	Auburn .	243	169	69-55
30	N. Brookfield	810	650	80-25	54	Spencer .	1,470	996	67-76
31	Bolton .	182	144	79-18	55	Webster .	982	656	66-80
32	Gardner .	758	597	78-76	56	Warren .	784	523	66-71
33	Southbridge,	1,068	840	78-65	57	Sturbridge .	546	270	49-45
34	Westboro' .	772	607	78-62	58	Sutton .	716	334	46-64

TABLE in which all the Counties are numerically arranged, according to the AVERAGE ATTENDANCE of their Children upon the Public Schools for the year 1879-80.

1878-79.	1879-80.	COUNTIES.	Ratio of Attendance.
8	1	DUKES . . . . .	·90-07
4	2	Barnstable . . . . .	·87-11
2	3	Franklin . . . . .	·83-49
1	4	Norfolk . . . . .	·81-29
3	5	Plymouth . . . . .	·80-12
5	6	Middlesex . . . . .	·79-83
6	7	Worcester . . . . .	·77-00
9	8	Hampshire . . . . .	·76-92
7	9	Suffolk . . . . .	·75-25
13	10	Berkshire . . . . .	·73-70
10	11	Essex . . . . .	·72-15
12	12	Bristol . . . . .	·70-68
11	13	Nantucket . . . . .	·66-20
14	14	Hampden . . . . .	·65-83

#### AVERAGE ATTENDANCE FOR THE STATE.

Number of children between 5 and 15 years of age in the State .	307,321
Average attendance . . . . .	233,127
Ratio of attendance to the whole number between 5 and 15 years of age, expressed in decimals . . . . .	·75-86

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